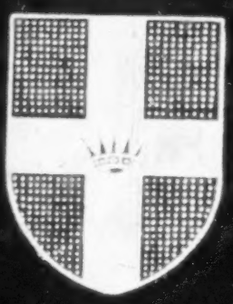
MALAYSIA



SARAWAK

DEVELOPMENT PLAN

1964—1968

To be absorbed into the first Malaysian Development Plan
1966 — 1970
with such revisions as may then appear desirable.

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PREFACE

If I had to sum up this Development Plan in one phrase, I would say that its main aim is rural economic and social development. This does not mean that the towns will be neglected, but the fact is that four-fifths of Sarawak's people live in the rural areas, and the economy is very largely dependent on what they produce. Also, the towns are already relatively well provided with amenities. It is therefore fair and reasonable that the main effort under the Plan should be concentrated on rural development.

To prepare a Plan such as this demands a great deal of work from a large number of people, and in fact work started well over a year ago when Divisional Development Committees and Departments were asked to put forward their proposals for the five-year period. Work began before Malaysia came into existence, but this Plan would not be possible without Malaysia, for the simple reason that Sarawak alone, or as a British Colony, would not have been able to finance it.

I would like to record the thanks of my Government to the Economic Planning Unit of the Federation of Malaysia which gave valuable assistance in the formative stages of the Plan, and to the Deputy Prime Minister, Tun Abdul Razak, who attended the first session of the National Development Planning Committee in Sarawak, at which the final draft of the Plan was accepted.

The Plan was considered and approved by Council Negri on 12th November, 1963. The fact that this approval was unanimous is a good sign for the future, for if the Plan is to be successful the co-operation of all sections of the community will be required.

As I said in my speech to Council Negri: this Plan is a tough one because we have tough problems to overcome. All sections of the community must work hard to improve themselves. Above all, there is no place in Sarawak now for anyone who hopes to disturb and disrupt our economy.

The Plan aims to benefit all sections of the community, and all must work and strive together—the farmer, the labourer, the fishermen and the businessmen. If they do, we shall succeed.

STEPHEN KALONG NINGKAN,

Chief Minister,
Sarawak.

KUCHING,

22nd November, 1963.

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Sarawak Development Plan 1964-1968

CHAPTER I

Review of 1959-1963 Development Plan

I.—INTRODUCTION

1. The Sarawak Government can arrange its recurrent expenditure satisfactorily by means of an annual Budget, but this procedure is not suitable for financing a project, such as the construction of a major road, which will take several years to complete. For capital investment of this kind, the Government must plan ahead before starting work so that it can be reasonably certain that there will be enough money in the future to complete it.

2. The Sarawak Government first undertook this kind of planning after the war when it was faced with the long-term investment required to repair the damage resulting from the war and to make up for several years of neglect and general deterioration. In fact, some urgent schemes had to be started in advance of planning but in due course the 1947-1956 Development and Welfare Plan was drawn up.

3. In 1951 the Consultative Committee of the Colombo Plan invited each of the countries within the region to present a development programme. The idea behind this was that if each country had such a plan it would become clear in what respects it needed external aid, and assistance given by other Colombo Plan countries could thus be provided in the most useful and effective form. This was a suitable moment for Sarawak to review the 1947-1956 Plan since considerable extra funds had become available during the 1950-1951 boom. A revised plan was prepared covering the years 1951 to 1957 and a number of new projects were included.

4. Also in 1951, the Development, Welfare and Reconstruction Fund (which in 1960 became simply the Capital Fund) was established. All development expenditure is financed from this fund and its purpose is to help protect major capital programmes from the vicissitudes of

annual estimating. Its main sources of revenue have been contributions from the annual budgets and surplus balances; Colonial Development and Welfare grants; loans; and extraordinary revenue. In the same year the Development Board was established by Council Negri to keep under review all forms of development and to make plans for the future.

5. In accordance with the policy that development plans should be be kept flexible and adjusted from time to time, a further Plan was prepared for the years 1955-1960. This was followed by the 1959-1963 Plan which was itself amended on several occasions. This current Plan period will now be reviewed in outline.

II.—GENERAL ECONOMIC CHARACTERISTICS

6. The 1960 census showed that Sarawak had a population of about 745,000 as against 546,000 in 1947. These figures imply an average rate of growth of 2.5 per cent per annum over the thirteen years between the two censuses, but it is likely that the rate of growth has itself been increasing and hence that the rate during the 1959-1963 Plan period was more than the 13-year average. The malaria eradication programme and the improvement in maternity and child welfare services have undoubtedly had a major effect on public health, and the rate of increase today is probably about 3 per cent per annum. Although numbers are growing rapidly, Sarawak is still sparsely inhabited: its area is almost the same as Malaya, but the average density of population—about seventeen people to the square mile—is less than that of the State of Pahang.

7. It is estimated that the gross domestic product of the country was $375 million in 1955 and $460 million in 1961. The two years are comparable so far as the prices of the main exports are concerned, and the increase represented by these figures—$85 million in six years, or 3.4 per cent per annum—probably gives a fair picture of the economy. The increase in gross domestic product has just kept ahead of the rate of population growth, so that one may say that the standard of living has been edging upwards.

8. The country's income is heavily dependent on its main export goods, rubber, timber and pepper, and the prices of these must be regarded as having been satisfactory during the period of the Plan. The years 1959 and 1960 were above average, but there were no disruptively large movements in either direction, so that the economy of the country, and Government development projects, were able to proceed on an even keel.

9. The value of imports is related to the purchasing power of the population, and hence was greatest in 1959 and 1960. Nevertheless these two years were the most favourable for the balance of trade; in 1961 there was a deficit and in 1962 a small surplus. The retail price index was steady.

10. An estimate of the gross fixed capital formation for the year 1961 gives the figure $76 million, or 16.5 per cent of the gross domestic

product. Total imports of machinery increased from $13 million in 1959 to $22 million in 1962. About 46 per cent of all investment was from Government funds. including Local Authorities but not electricity and water boards.

III.—PROGRESS OF THE PRIVATE SECTOR

(*a*) AGRICULTURE

11. Agriculture (including forestry) is by far the largest sector of the Sarawak economy, providing employment for four-fifths of the labour force, yielding 45 per cent of the gross domestic product, and producing 85 per cent by value of exports.

12. The Government rubber and coconut planting schemes did not start until 1956 and 1959 respectively and thus all production during the Plan period was a result of private investment in these crops. There are few rubber estates in Sarawak, none of them large; and it must be admitted that much of the rubber planted outside the Rubber Planting Scheme by smallholders is of a very low standard and that the investment therein has been minimal. The Government schemes have been a considerable stimulus to private investment, since, whilst a high standard of husbandry is required, the schemes do not cover the whole cost of planting: the applicant himself has to provide the balance of the investment, largely in the form of labour. This has been the main source of private investment in agriculture during the period.

13. The changes in agricultural output during the five years under review are largely due to variations in prices, and not to changes in the pattern of investment during the plan period or in previous years.

(*b*) MINING

14. The oil from the field in Brunei is not shipped from there, but is piped to Lutong in Sarawak. Somewhat over half is refined in Lutong before export, and the remainder is exported as crude. Although some oil is produced here, this is only a fraction of the total oil exports: the value of Sarawak-produced oil averaged about $2.7 million per year during the period, but is gradually declining. The refinery at Lutong and the field in Sarawak give employment to about 1,700 persons.

15. Bauxite is mined in west Sarawak. Exports started in 1958, and the value of these rose from $1.5 million in 1958 to $4.1 million in 1962. This industry employs about 400 workers.

16. The production of quarried stone rose from about 172,000 cubic yards in 1959 to 291,000 cubic yards in 1962 largely as a result of the demands of road construction. Gold mining is now on a small scale, and the methods used are old-fashioned.

17. It has long been known that there are considerable deposits of coking coal in the First and Second Divisions of Sarawak, and during the period investigations were commenced by Japanese mining interests

with a view to commercial exploitation. These investigations are continuing. At the same time, sizable deposits of high-grade ceramic clay were discovered in the vicinity.

(*c*) MANUFACTURING AND CONSTRUCTION

18. It is estimated that manufacturing affords employment to about 4 per cent of the labour force and produces about 8 per cent of the gross domestic product. The main variety is the processing of primary produce for export, and includes the refining of petroleum, sawmilling, sago and copra milling and pepper processing. There are also a number of small industrial concerns which manufacture goods for the domestic market. This pattern has not altered significantly during the period of the plan.

19. The Borneo Free Trade Area came into effect on 1st January, 1962. The object is to increase the size of the market available to locally produced goods, but even so the smallness of the market remains a handicap to manufacturing industries.

20. There has been considerable activity in the building industry, with the main expansion in the larger towns. The housing census in June, 1960, indicated that there were about 4,000 permanent and semi-permanent housing units in Kuching, and it is estimated that a further 1,400 units were completed in the period June, 1960—October, 1962. The very high rate of expansion indicated—15 per cent per annum—is largely the result of private investment in the cheaper types of houses.

IV.—PROGRESS OF THE PUBLIC SECTOR

21. Government's total investment expenditure during the 1959-1963 period will be about $160 million, made up as follows:—

TABLE I

	$ million	
Agriculture		
Rubber Planting	18.5	
Coconut Planting	1.6	
Land Development	.6	
Drainage and Irrigation	1.0	
Research and Investigation ...	2.9	
Animal Husbandry	.4	
Fisheries	.1	
Forestry	.7	
Survey	1.6	
Other Schemes	.4	27.8
Transport		
Roads and Bridges	44.6	
Ports and Waterways	9.3	
Civil Aviation	4.3	58.2
P.W.D. Plant and Equipment ...		13.3
Communications		
Broadcasting	.9	
Telecommunication	4.4	5.3

Utilities		
Electricity	4.1	
Water	7.8	11.9
Industry		.4
General		
Land Acquisition	3.0	
Town Development	1.8	
Research	.1	
Miscellaneous	.2	
Government Buildings	6.1	11.2
Social Services		
Education	17.4	
Medical and Health	9.4	
Housing	3.1	
Community Development	1.6	
Recreational Facilities	.5	
Social Welfare	.1	32.1
	Total	160.2

22. This represents an average investment of $32 million per annum, but in fact this figure has only been attained in 1962, previous years being well below it. It is possible that the high rate estimated for 1963—$51.7 million—will not be reached owing to the emergency.

23. The rate during the previous five years, 1954-1958, averaged just over $20 million per annum, and when the 1959-1963 Plan was drawn up it was envisaged that expenditure would continue at about the same level. In fact funds available were more than expected, largely owing to the two years of good prices 1959 and 1960. In 1960 a Supplement to the Plan was prepared and the total expenditure proposed for the period was increased.

24. The concept behind the 1959-1963 Plan was basically that of a long-range budget to be adjusted from time to time in accordance with the availability of funds and the progress of various projects. The Plan was not framed in terms of targets for the economy as a whole and for this reason it is not possible to examine it (except project by project) with a view to finding out whether its aims have been achieved. It is nevertheless of interest to record the total expenditure and percentages by sectors, under the original Plan, under the Supplement prepared in August, 1960, and as it is now estimated to be:—

TABLE II

EXPENDITURE UNDER 1959-1963 PLAN

	Original Plan		*Supplement August, 1960*		*Actual (Estimated)*	
	$m	%	$m	%	$m	%
Agriculture	31.5	27.4	39.3	25.5	27.8	17.4
Transport	40.0	34.8	52.1	34.0	58.2	36.3
P.W.D. Plant and Equipment ...	1.3	1.1	2.8	1.8	13.3	8.3
Communications	2.5	2.2	2.6	1.7	5.3	3.3
Utilities	11.7	10.2	13.7	8.9	11.9	7.4
Industry	0.2	0.2	0.4	0.3	0.4	0.3
General	4.2	3.6	9.5	6.2	11.2	7.0
Social Services	23.6	20.5	33.3	21.6	32.1	20.0
Total ...	115.0	100	153.7	100	160.2	100

25. It will be seen that investment in agriculture is below what was originally proposed, and represents 17 per cent of total as against 27 per cent in the original plan. Transport—mainly roads—took a larger proportion of the expanded programme, and specific provision for Public Works Department plant and equipment increased from $1.3 million (planned) to $13.3 million (actual). Indeed, the total expenditure on plant and equipment will be about $5.7 million higher than this as some schemes contained provision for plant purchase, and this is included in the figure for transport. Social services absorbed about one-fifth of the expanded budget, which was the proportion originally proposed.

(*a*) AGRICULTURE

26. The rubber planting scheme started in 1956 with a target of 10,000 acres to be planted in five years. Under the scheme, approved applicants are subsidised to the extent of $250/acre for new planting and $450/acre for replanting. $200 worth of the subsidy is given in kind, including high yielding material, and the remainder as cash grants. Agricultural Department staff supervise the planters' work to ensure that the trees are properly planted, fertilised and looked after.

27. It soon became clear that the original target would be exceeded, and in 1959 the aim had become to plant 90,000 acres by the end of 1963. In fact, by the end of 1962 somewhat over 60,000 acres had been planted, so that the revised target will not be attained. The annual acreage planted fell from an average of 13,800 in 1958-1959 to 8,250 for the three years 1960-1962.

28. In addition to the normal rubber planting scheme, there is a small special scheme to assist those people who live in places that are too remote for planting to be supervised in the normal way. The total expen-

diture on rubber planting is likely to be about $18.5 million over the five-year period.

29. The other substantial agricultural subsidy scheme is that for planting coconuts, which started in 1959, and is based on the provision of good quality seedlings to approved applicants. For domestic planting (fifteen palms around the applicant's house) there is no further subsidy, but for plantations a cash subsidy of $2.00 per tree is paid (up to a maximum of 500 palms) conditional upon good husbandry.

30. The original target was 10,000 acres to be planted before 1965 but the scheme has since been enlarged and accelerated and now aims at planting 20,000 acres by the end of 1963.

31. By the end of 1962, about 14,900 acres had been planted, mainly in the First and Second Divisions; the total expenditure under this scheme during the five-year period will be about $1.6 million.

32. About $600,000 has been spent during the period on land settlement. There were two main schemes: one to assist in the migration of native farmers from regions in which there was a land shortage to areas where land was more plentiful; and another to assist planters to settle on a former rubber estate. Neither of these schemes has been outstandingly successful; in particular, it is now doubted whether the scheme aimed at assisting migration of native farmers can be regarded as having been in the long term agricultural interest of either the farmers or the country as a whole, since the settlers were not obliged to take up improved methods of farming.

33. About $820,000 will have been spent on drainage and irrigation work carried out directly by Government, about half of this arising from the estate settlement scheme mentioned above. Most of the rest of the $820,000 was expenditure arising from preliminary survey work.

34. There is also a scheme for assistance to padi planters, in general confined to areas of less than 300 acres. The aim is to assist in the improvement of existing wet padi land and the establishment of new areas. A strong element of self-help is encouraged and Government assists the planters by advice and by the provision of tools and materials for building sluices and water-gates, together with encouragement in the form of small cash subsidies. The scheme was initiated in 1959 and since that time about $190,000 has been spent on the improvement of approximately 5,000 acres.

35. A considerable programme of agricultural research and extension has been undertaken and expenditure is likely to be in the region of $2.9 million. A major item was a Colonial Development and Welfare scheme for agricultural research covering many fields including soils survey, agricultural chemistry, agronomy, plant pathology and entomology, and the provision of research buildings, equipment and quarters for staff. The improvement of facilities for extension work involved the expenditure of about $410,000 mainly on the rural education centre at Tarat

where Agricultural Department extension personnel are trained. They receive six months' training at the centre and thereafter operate in teams of one man and one woman. Emphasis is laid on the approach to the farmer's family, and the community as a whole, as a basis for agricultural progress.

36. About $410,000 was spent on animal husbandry. Of this about $130,000 was for livestock development, the main aim of which is the production and distribution of high quality pigs for breeding purposes: and $120,000 was for buffalo training which is aimed at providing trained buffaloes for padi planters at a price which they can afford, to encourage better husbandry. Most of the remainder was spent on the construction of the veterinary clinic at Miri.

37. There is no marine fisheries department in Sarawak and there was no expenditure during the period on this account. There is, however, a fresh water fisheries branch of the Agriculture Department and development expenditure amounted to $63,000, mainly expenses arising from the provision of fish fry.

38. Other agricultural schemes involved the expenditure of about $400,000. This included $210,000 for the establishment of a pepper processing plant and godown in Sarikei; and smaller schemes for the production and distribution of good quality plant material, and for experiments in farm mechanisation and the provision of tractors for hire.

39. Rural credit provided by the Government has been channelled mainly through the Sarawak Development Finance Corporation. The Corporation's capital is $1 million which was made available by Government in 1958. About $330,000 has been lent for investment in agriculture, about three-quarters of this being to rubber planters. Other investments include $375,000 in various industrial activities, and the provision of 90-day loans for pepper storage at Sarikei.

40. Development expenditure on forestry will have amounted to about $700,000, over half of which will be spent on the Timber Research and Technical Training Centre to be constructed in 1963. Other projects include silvicultural research and the establishment of a small forest school.

41. Development expenditure on survey (including provision of $225,000 for the Land and Survey Training School which may not in fact be spent in 1963) amounts to $1.6 million. About $1.4 million was spent on air photography, tellurometer ground control survey and the production of maps.

(*b*) TRANSPORT

42. Before the war the only properly constructed and surfaced road outside Kuching was that from Miri to Lutong, a distance of about seven miles. In addition there were rough motorable roads from Kuching to Bau, Kuching to Matang and Lutong to Brunei, and tracks from Kuching

to Serian, Sarikei to Saratok, Oya to Mukah and Lawas to Trusan. These roads and tracks were not maintained during the war and by 1945 had become almost impassable. There was also about ten miles of railway leading out of Kuching which went out of use during the war and was not resuscitated.

43. After the war a programme of road reconstruction was undertaken. This included town roads in Kuching, Sibu, Sarikei and Miri, and the reconstruction of the roads from Kuching to Bau, Kuching to Serian and Lawas to Trusan.

44. In 1955 work was commenced on the 22.3 miles of secondary road between Sarikei and Binatang. The original estimated cost was $4½ million, but this was increased to $4.9 million ($221,000/mile) in 1959. The work is due to be completed this year.

45. In 1957 work was started on the eighty-one miles of trunk road from Serian to Simanggang. It was originally intended that the road should have an 18-foot surfaced carriageway and the estimated cost was $22 million ($272,000/mile). In 1959 it was decided to reduce the cost to $18.5 million by constructing a 9-foot surfaced carriageway only, and to use the $3.5 million thus saved for the construction of feeder roads. The road formation is now complete and ten miles have been surfaced.

46. The following table gives the basic information about the chief roads under construction during the present plan period:—

TABLE III

Road	*Length (miles)*	*Estimated Cost (1963 Estimates)*	*Cost/Mile*
		$	$
Bau-Lundu	35	3,400,000	97,000
Lundu-Serayan	9½	307,000	32,000
Serayan-Sematan	7½	470,000	63,000
Serian-Simanggang ...	81	18,500,000	228,000
Simanggang-Engkilili ...	18	1,902,000	63,000
Undup spur	12		
Engkilili-Saratok	66	10,200,000	155,000
Saratok-Jakar	30	2,635,000	75,000
Roban spur	5		
Sarikei-Binatang	22.3	4,930,000	221,000
Sarikei town and district ...	—	1,400,000	—
Nanga Pakan	13.6	814,000	60,000
Kelupu-Julau-Durin ...	32	2,900,000	90,000
Sibu-Ulu Oya	30.7	2,267,000	74,000
Tanggi spur	8	600,000	75,000
Sibiew-Bintulu	5	200,000	40,000
Lambir-Subis	14	1,054,200	75,000
Limbang Kubong	11.3	532,800	47,000
Fifth Division roads ...	27.75	1,381,000	50,000
Lawas-Lawas Damit ...	9.6	600,000	62,000
Total ...	438.25	54,093,500	123,000 (average)

47. About $9.1 million will have been spent on port development during the period. The major work was at Tanah Puteh, Kuching, where an 800-foot wharf and transit shed space of 60,000 square feet were completed. The total cost of the scheme, including land acquisition and the construction of roading, is about $8.7 million, of which about $6.4 million will have been spent during the present period. The Port Authority came into being in 1961, taking over the new installations, and has since been responsible for the operation of Kuching port.

48. In Sibu a new transit shed is under construction, which will bring the space available to 37,700 square feet. The wharf is 486 feet in length. The Kuala Paloh Channel has been regularly used since 1961 and ships of 450 feet length and 18 feet draft now have access to Sibu, as against a maximum of 300 feet in length and 16 feet 6 inches draft by the old Rejang channel.

49. Overseas cargo handled in 1962 was about 223,000 tons in Kuching and 148,000 tons in Sibu. In both cases, this represents an increase of about 30 per cent on the 1959 figures.

50. Wharves for river and coastal shipping were constructed at Sibu, Sarikei, Simanggang and a number of smaller ports, and the new commercial wharf at Miri was brought into operation.

51. About $4.4 million was spent on the development of civil aviation during the period. Improvements and extensions to Kuching airport will have cost about $2.3 million; the length of the runway is 6,300 feet and there is a regular service to Singapore, Brunei and Sabah. At Sibu about $880,000 is being invested in the present plan period on improvements, including the surfacing of the runway which is 4,500 feet in length. There are regular services to nine other airfields in the country, and services to a tenth are planned to start shortly.

(*c*) COMMUNICATIONS

52. Radio Sarawak building was constructed during 1953-1955 and further extended during 1956-1958. All the development expenditure on broadcasting during the 1959-1963 Plan—about $870,000—will have been on improvements to transmitting equipment. A 10kw medium-wave transmitter was installed in 1960 and the older 5kw medium-wave transmitter is still in use. These two serve the densely populated area round Kuching for the Chinese/English and Iban/Malay services. Two new 20kw short-wave transmitters are being installed during 1963 at a total cost of about $800,000 (including buildings). These will replace the existing 7½ and 5kw short-wave transmitters and will carry the two main services to the population living beyond the reach of the medium-wave signals. The 7½kw transmitter thus made available will be used to carry a third service in other languages.

53. About $4.4 million will be spent on telecommunications during the five years. It is estimated that the number of subscribers will reach 4,630 by the end of 1963 which represents an increase of 73 per cent over the period. Revenue from telephones in 1963 will be $1.5 million: although this is an increase of 115 per cent on 1959 it is still some way below the cost of the system.

(*d*) UTILITIES

54. Electricity is supplied by the Sarawak Electricity Supply Corporation and by private generation. SESCO has a total issued equity capital of $12 million all of which has to date been provided by Government, $4.1 million during the 1959-1963 period.

55. It is anticipated that 26.6 million units will be sold by SESCO during 1963 as against 13.3 million in 1959 which means that sales of units will have doubled over the period. The Corporation's installed capacity has increased from 6,117kw at the beginning of 1959 to an estimated 12,800kw by the end of 1963. Total non-SESCO generating capacity has risen from 4,504kw at the beginning of 1959 to an estimated 8,500kw at the end of 1963 so that at present about 40 per cent of capacity is non-SESCO. The installed capacity of private licensees operating minor public supplies increased from 126kw at the beginning of 1959 to an estimated 730kw by the end of 1963.

56. The Corporation has raised a loan of $3½ million during 1963 from non-Government sources. Over the five and a half years 1st July, 1958 to 31st December, 1963, (SESCO's financial year used to start in July) assets to a total value of $15.9 million will have been created: of this $7.35 million will have been provided by share and loan capital and $1 million by bank overdraft, leaving the remaining 47.5 per cent to be financed by SESCO from depreciation and reserves.

57. SESCO now has fifteen generating stations supplying the major centres and their environs throughout Sarawak. The capacity of the stations ranges from 6,580kw in Kuching to 100kw in Bau. The centres of population being for the most part small and far apart, all the stations are powered by diesel and there is no interconnecting grid.

58. The installed capacity of private licensees generating electricity solely for their own industrial and domestic use increased from 4,378kw at the beginning of the period to an estimated 7,770kw at the end of 1963. Sarawak Shell Oilfields Limited is the major private licensee with a capacity of 5,150kw.

59. Statutory water boards were established in Kuching and Sibu at the beginning of 1959 and the supplies for sixteen smaller towns are managed directly by the Public Works Department.

60. A total of $7.8 million was invested in water supplies during the period, of which $6.2 million was on a loan basis: $5 million or 64 per cent of the total, was spent on Kuching and Sibu.

(*e*) INDUSTRIES

61. About $270,000 was spent on providing access to a small light industrial area at Padungan, Kuching. Borneo Development Corporation administers the scheme and provides assistance by lending money on mortgage to companies wishing to build factories. Thirty-two sites varying in size from 5,900 to 13,000 square feet have been made available. Twenty-six sites have been taken up, on seven of which the buildings have been completed.

62. Sarawak's share of the funds required to complete the facilities for the combined Geological Survey was about $85,000.

(*f*) GENERAL

63. The acquisition of land for development purposes will have cost about $3.0 million.

64. $1.8 million will have been spent on town development. Of this $885,000 is being used to complete the $2.2 million scheme in Sibu which was started in 1954. The other $1 million is divided into smaller sums expended on nine other towns.

65. $5.4 million will have been spent on the construction of Government offices, Public Works Department depots and workshop buildings. This includes the cost of constructing two office blocks at Badruddin Road, Kuching: a further similar block is to be built in Sibu, and half the cost will be met in 1963. $640,000 was spent on housing for development staff.

(*g*) SOCIAL SERVICES

66. Nearly $17.5 million—about 11 per cent of Government's development expenditure—was invested in improvements to educational facilities. This figure does not include Local Authorities' expenditure, nor the substantial amount raised from the public for school building. Remembering also that the annually recurrent costs of education are high (about $13.4 million in 1963, or well over twice that of any other department) it is seen that the total expenditure on education during the period was large.

67. The local authorities have a general responsibility towards primary education, although about three-quarters of the recurrent cost is in fact met by central government. The government also gives grants to local authorities for the construction of new school buildings, the size of the grant lying normally between 50 and 75 per cent of the total cost. The same system applies to aided schools, both primary and secondary under any other type of management, and a total of $5.8 million was expended by government in the form of capital grants to education agencies. The number of primary schools increased from 756 in Septem-

ber, 1958, to about 975 in 1963, and the enrolment rose by 27 per cent to somewhat over 100,000 at present. The enrolment of children of primary school age (6-11) has increased even more sharply: by over 40 per cent in the four years 1958-1962 (September) (1963 figures not yet available). The total number of children of school age in the country is not accurately known, but it is estimated that over 60 per cent are going to school.

68. About $5 million was invested in the construction of Government secondary schools, and the number increased during the period from three to eleven. Since these are only newly established, the building figures are not yet reflected in enrolments, and in fact the main expansion in numbers as regards secondary education has been in unaided schools.

69. The Batu Lintang Teacher Training College will be nearly completed by the end of the period for a total cost of about $2.5 million. About 650 English-medium teachers will have been trained there during the five years, and the college at Sibu has produced approximately fifty trained teachers annually, mainly for Chinese-medium primary schools.

70. Government capital expenditure on medical facilities and on public health programmes during the plan will amount to about $9.4 million. Of this, about $4.3 million was spent on the construction of new hospitals or dispensaries, or improvements to existing ones: about $4.7 million on public health programmes, and $350,000 on a central medical store.

71. New hospitals were constructed at Simanggang and Sarikei, and new dispensaries at twelve smaller places. Work on the Mental Hospital, Kuching, was completed and major improvements were made to the General Hospitals in Kuching, Sibu and Miri.

72. Expenditure on the anti-malarial campaign during the period will be over $4 million, and the disease has now been almost entirely brought under control, with a noticeable improvement in the health and vitality of the population. The pilot phase of a scheme aimed at controlling tuberculosis was started in 1960 in Kuching, and has been extended to Sibu. A rural health improvement pilot scheme was initiated in 1962.

73. Maternity and child health services are the responsibility of Local Authorities, with assistance from central Government in the form of staff training and the provision of free drugs. Grants totalling $75,750 were made by central Government to Local Authorities during the period for capital works in connection with these services.

74. Borneo Housing Development Limited is a building society with a total paid up capital of $5.9 million. Of this 66 per cent is owned by Colonial Development Corporation and 17 per cent each by Sarawak and Sabah. Shares valued at $1 million were purchased by the Sarawak Government during the period. In 1963 the Board of Trustees of the Malayan Employees Provident Fund agreed to make a loan of $5 million to Borneo Housing Development.

75. Formerly, Government provided mortgages to its officers to encourage home ownership, and expenditure on this account in 1959 and 1960 amounted to somewhat over $2 million. From 1st August, 1960, Borneo Housing Development took over the responsibility of providing these mortgages, the capital in the form of loans previously made by Government—amounting altogether to about $2.8 million—being regarded as a loan to Borneo Housing Development which will pay 5 per cent interest to Government.

76. About $1.6 million will have been spent on what is somewhat loosely termed "community development". There are five community development schemes proper, aimed at economic and social improvements in areas which—because of their location—have been somewhat out of range of the normal government services based on administrative centres. There are a number of other schemes associated with various community projects which have also been financed from this allocation.

CHAPTER II

Problems of The Sarawak Economy and Objectives of the 1964-1968 Development Plan

I.—ECONOMIC PROBLEMS

77. Government's development programmes since the war have grappled with the main problems of the Sarawak economy. Achievements have been substantial but the tempo will have to be increased if the standard of living is to be maintained and the economy made secure for the future.

The Country

78. Sarawak has an area of 48,300 square miles, and is thus almost as large as Malaya. The sea off-shore is shallow and the coast low-lying, with large areas of peat swamps particularly around the mouths of the rivers. The average rainfall varies between about 100 and 200 inches, according to location, and at Kuching is about 170 inches: in general, one may say that the rainfall is about one and half times that of either Malaya or Sabah. The wettest season is November-February and the driest July-September. There are no ports on the coast, but the Kuching and Rejang rivers are navigable to small ocean-going ships. Many of the other rivers have bars at their mouths, so that only shallow draught vessels can enter; they are nevertheless much used for transport although this is often hindered by lack of water during the dry season. Inland, the terrain is largely composed of steep hills, low in the middle reaches of the rivers but becoming mountainous in the interior.

The People

79. The present population is about 810,000 and if it were spread evenly through the country the density would be low at about seventeen persons per square mile. As it is, the distribution is extraordinarily uneven with, for example, 6,900 people per square mile in Kuching town, 115 per square mile in Kuching rural district, 4 in Baram district and 3 per square mile in Kapit. The uneven distribution of population, and in

particular the very low density in some of the big inland districts, is related to some of the major problems of the economy.

80. The population contains an exceptionally large number of children and young people: about 45 per cent of the population are under fifteen years old, which is probably as high a proportion as in Singapore. This has three implications: new jobs will have to be found for growing numbers of people of working age; the population is likely to expand increasingly rapidly in future, as these young people marry and have families themselves; and the large number of children are dependent upon (and their education has to be provided by) the relatively small number of people of working age.

The Economy

81. About four-fifths of the economically active population get their living from agriculture. There are indications that the proportion of the population so occupied has fallen since 1947, but the actual number has increased. Although the number of people engaged in the rubber industry has more than doubled since 1947, rice growing is still by far the largest industry in the country, occupying over half of all economically active persons. Manufacturing employs about 4 per cent of the labour force, and commerce about 5 per cent.

82. The main features of the economy can be summarised in the form of a table showing the approximate numbers of people engaged in various industries, the estimated net value of the output of these industries (value added at factor cost) and the one divided by the other giving an indication of the productivity of labour. The figures in this Table should only be regarded as approximations, but they are sufficient to show that more than half the labour force is dependent upon an industry—rice growing—with a very low output.

TABLE IV

EMPLOYMENT IN, AND NET OUTPUT OF, VARIOUS INDUSTRIES

Industry	*Number of person engaged in industry*	*Net output (value added)* $'000	*Net output per head* $
Rice	170,000	22,000	130
Other agriculture	70,000	164,000	2,300
Mining and quarrying	2,400	34,000	14,400
Manufacturing	10,000	33,000	3,200
Building and construction	4,600	10,500	2,300
Electricity and water supplies ...	530	3,900	7,300
Transport	5,000	21,500	4,300
Others	31,770		
	294,300		

83. The fact that so many people depend upon the comparatively inefficient rice industry is a severe weakness in the economy, and it is clear that the productivity of the industry must be increased (mainly by providing drainage and irrigation works, fertilisers, new varieties and insecticides) so that a better return is obtained for the work that is put into it. In this way, it should be possible, without reducing the output of rice, for a larger proportion of the labour force to be engaged in more productive occupations.

84. Although there are hopes that in future a number of manufacturing industries serving Malaysia as a whole may be located in Sarawak, and although there are possibilities of coal-mining, the fact remains that owing to the limited market the prospects of substantial industrialisation in Sarawak are small. Whilst the number of people in commercial, industrial and government jobs will undoubtedly grow it is not likely that this increase will be more rapid than the rate of growth of population as a whole: in short, it is probable that the proportion of people gaining their living from the countryside will remain at about 80 per cent of the total.

85. Sarawak is heavily dependent on exports. As mentioned above, it is estimated that the gross domestic product in 1961 was $460 million: in that year exports were valued at $180 million and almost 40 per cent of the output of the economy was the production of goods for export. The value of imports was $221 million: the largest section was food, which was about 30 per cent by value of the total.

86. The average percentage by value over the last five years (1958-1962) of Sarawak's main exports is shown in the following table:—

TABLE V

Rubber	49
Timber	19
Pepper	11.5
Bauxite	2.2
Sago	1.7
Oil (excluding re-exports)	1.6
Others	15.0
	100

87. There is thus a clear need to encourage diversification of exports to start to reduce the preponderance of rubber. There are possibilities of increasing mineral exports, and some scope for diversification of agricultural exports. Clearly, too, the production of food for home consumption will help to limit dependence on imports, and this is largely a matter of improved efficiency and lower costs.

II.—OBJECTIVES OF THE PLAN

88. Government's activity is only a part—though in Sarawak an important part—of the whole economy. For the proper planning of development it is necessary to view the economy as a whole and to decide the general aims which it is hoped to achieve, before one maps out the

part to be played by the Government. A development plan should result in an outline budget of the government's capital expenditure for the period covered; but the government's investment is not an end in itself and it is the total results of the economy which matter to the people gaining their living from it.

89. The broad objectives of the Plan may be briefly stated:—

(1) To improve the farmer's livelihood and make the countryside a pleasant place to live in;

(2) To provide employment for the country's population of working age;

(3) To raise the per-capita output of the economy and to protect per-capita living standards against the adverse effects of a probable decline in rubber prices;

(4) To widen the variety of Sarawak production, emphasising the development of other suitable agricultural products in addition to rubber and also giving encouragement to industrial expansion.

(5) Finally, while stressing the importance of development which will meet production and employment requirements, to improve and expand the social services needed to provide educational opportunities for the rapidly growing school-age population, to extend the public health services over a wider coverage of the rural as well as urban population, and to provide more adequately for rural utilities.

90. These objectives may be framed alternatively in terms of targets of output and employment for the individual sectors of the economy. Only a small portion of what is done under the Plan to increase production will have an immediate effect and several of the major schemes, such as rubber planting, will not start to show results until well after the Plan period is finished. It is therefore necessary to judge proposals by the effect that they will be likely to have on output in some future year. The year 1975 is chosen for this purpose: all rubber planted during the period of the plan should have come into bearing by then, and so of course will all crops that take less time to mature.

91. The statistical and economic knowledge available in Sarawak is too limited to allow output and employment targets to be regarded as anything more than checks on the other figures. (In a sense they are never more than this in any development plan since the limitations are always either the capital available or the ability to invest it productively). Nor will it be easy to verify in detail the extent to which targets have been achieved. But common sense accords with the figures in saying that if there is to be enough work for people in future, and if the standard of living is to be maintained, the main effort over the next five years must be directed to increasing the agricultural production of the country.

III.—PRODUCTION AND EMPLOYMENT TARGETS

(*a*) AGRICULTURE AND RURAL DEVELOPMENT

92. The main crops are rubber, rice, pepper, coconuts and sago and the history and prospects of these must now be very briefly reviewed:—

Rubber

93. In contrast to Malaya and Sabah there are very few estates in Sarawak, none of them large, and rubber is overwhelmingly a smallholder's crop. This means that Sarawak has not had the benefit of the substantial external private capital investment in rubber which has been a factor of the Malayan economy for years; and it means that Government's re- and new- planting schemes are costly in staff and overheads, since there are a large number of individual applicants each with only a small acreage being planted. It also means that Sarawak has lacked the stimulus provided by estates, which being under professional management and with capital resources at their disposal, are able to adopt technological improvements and give a lead to smallholders in matters of maintenance, tapping procedure, processing and so on. It was not until 1956—eleven years after the end of the war—that the Government Rubber Planting Scheme (R.P.S.) was started, and this, together with the lack of large estates, accounts for the fact that a large proportion of the rubber is not yet high-yielding.

94. It has been estimated that there are altogether 364,000 acres of rubber, but this figure is not particularly significant since the age is unknown, and some of it is in such poor condition as to be untappable except at a time of exceptionally high prices. Rubber exports over the past five years have been in the region of 45,000 tons per annum. In years of particularly high prices such as 1950 exports have risen to 54,000 tons, although an unknown, but considerable, proportion of this must have been re-export of imported rubber. It is likely that there was some haphazard planting of seedling rubber during the war as a result of the breakdown of rubber restriction, and these trees should still have some years of productive life. It must however be assumed that the production from the non-high yielding trees will gradually decline in future, and that the only increase that can be looked for is from the rubber planted under the Rubber Planting Scheme.

95. As will become apparent there are proposals for the diversification of agriculture, and in particular for the introduction of oil palms; but in the short term there is no easy alternative to rubber as the main smallholder's cash crop. Rubber is in fact a good crop for smallholders and has a major part to play in the change over from shifting to permanent agriculture. It is non-seasonal and no great harm is done if the farmer leaves his rubber holding for a few months to, for example, plant padi. Nevertheless, price and quality are the most important considerations and in order for Sarawak to keep its place in what will certainly be an increasingly competitive market it is essential for costs to be reduced and

quality improved. These must be the twin aims of the Rubber Planting Scheme, so that at any given price it is possible for the rubber planters to produce more rubber of better quality, and hence to earn more.

Rice

96. Over half the economically active population rely mainly on rice growing for their livelihood, although a considerable proportion of them have subsidiary sources of income. It is estimated that Sarawak produces somewhat more than half its rice requirements, derived from hill and swamp padi in roughly equal proportions. However, there are few properly irrigated wet padi areas, and very little has been invested in drainage and irrigation works.

97. Hill padi is grown by natives according to traditional methods, under which (it has been estimated) about 70 acres is required to support each family. Only a fraction of a family's land is farmed each year, the remainder being allowed to lie fallow, and after a crop has been taken from it the area is allowed to regenerate. The next year the family farms a different portion of their land, but eventually they will have completed the cycle and will come back to the original area, which should have had sufficient time to regain its fertility. The fallow period should not be less than 12-15 years, and so each family should, under the traditional system, have enough land for at least twelve successive annual crops. If a holding is reduced much below this point, the cycle is shortened so that the fertility of the land is not restored between crops. The traditional way of meeting the needs of an expanding population was by moving to an unoccupied area, but this is ceasing to be practicable and is certainly not desirable as it leads to permanent damage to ever-increasing areas of land.

98. There are four main disadvantages to the traditional form of hill padi cultivation:—

(1) Productivity is low in proportion to the effort required, so that the farmers get only a small return for much arduous work.

(2) The large area of land needed for each family means that the population is very scattered. This is part of the reason for the low population density mentioned above, and makes it difficult for Government to provide the amenities which people want.

(3) Productivity per acre is also low, so that land is occupied which could, if farmed more intensively, produce more.

(4) Production is chancy and a farmer's harvest may, in a bad year, be very small indeed.

99. Direct studies of Iban agriculture that have been made indicate that a person working on a hill padi farm might expect a return on his labour equivalent to $150-$200. This can hardly be regarded as an adequate income for a year, and yet over half the economically active people in the country depend mainly on padi for their livelihood.

100. There is no strategic argument for continuing hill padi cultivation as the fertility of the soil is gradually being reduced by it. If hill padi areas were allowed to revert to jungle and regenerate completely they would have greater potentiality for producing rice in a time of emergency than if they had been farmed continuously. In many areas, where the soil has degenerated, it is likely that the return on labour devoted to hill padi is so small that the price of, for example, rubber would have to fall to a low level before it became a less remunerative crop than hill padi.

101. The lines on which this problem must be tackled are clear. Every encouragement must be given to the planting of padi on swamps instead of on hills; the steeper hills should be planted with tree crops (rubber); or allowed to revert to jungle, and other varieties of agriculture such as livestock and fruit-growing, should be encouraged. Considerable progress is being made, and, for example, over half the rubber planted under the Government subsidy scheme belongs to natives who would traditionally have been dependent on hill padi. Nevertheless, this is still a major problem, and demands intensive effort if a real improvement is to be made to the farmer's livelihood in the next five years.

Pepper

102. Sarawak is the world's third largest producer of pepper after India and Indonesia. However, this is a difficult crop as the price is subject to even wider variations than rubber, and it is unlikely that the total world demand will show any rapid increase in future. Efforts should continue to be directed towards reducing the cost of production and increasing the output from the acreage at present under this crop, rather than to attempting to increase the acreage.

Coconuts

103. Coconuts are grown in the coastal areas. It is estimated that there are about 45,000 acres and there is considerable scope for expansion of this crop both for home food consumption, and for export as coconut oil. In many cases drainage will be necessary.

Sago

104. It is estimated that the area under sago is of the order of 90,000 acres, mostly in the coastal district of the Second and Third Divisions. Although exports have risen steadily from $2 million-worth in 1957 to $4.2 million-worth in 1962, the price is still too low to support a satisfactory industry. Indeed, unless there is a substantial increase in the price, efforts will have to be mainly directed to finding alternative means of livelihood for districts which at present depend largely on sago.

Other Agriculture

105. In addition to these main crops, there is considerable scope for improvement and expansion in the production of fruit, vegetables, live-

stock, poultry and eggs, mainly for home consumption; as regards pigs and eggs this is largely a question of reducing costs of production in order to compete with imports from overseas. Both agriculturally and economically, the best way of achieving these objects is by the encouragement of integrated mixed farming.

New Crops

106. One of the major aims of the Plan is to encourage the diversification of the economy, and for this purpose to establish new crops, particularly for export. Oil palms are now proven in Malaya and Sabah, and there are large areas of soil in Sarawak upon which they will grow satisfactorily. If the oil is to be processed in a factory—which is highly desirable if the product is to be sold on the competitive world market—there has to be a sizable acreage of palms in order to keep the factory economically employed. For this reason it is likely that oil palms can most successfully be introduced on an estate basis, possibly with arrangements for subsequent smallholders' participation.

107. It is hoped that combined public and private investment will be able, during the five-year period to—

(i) plant 10,000 acres of oil palm;

(ii) plant 100,000 acres of high-yielding rubber;

(iii) reduce the costs of pepper production;

(iv) plant 50,000 acres of coconuts;

(v) increase rice output at the same time substantially increasing the proportion of swamp padi and decreasing the proportion of hill padi;

(vi) increase the output of fruit and livestock.

108. For some crops, such as rubber, the output in 1975 will be only marginally affected by further planting after 1968 since trees take six years to mature. If the targets of the various schemes are achieved, it would not be unreasonable to assume that by 1975 the net value of the contribution of agriculture to the economy will increase by 60 per cent of the 1961 figure. It must be emphasised that this estimate takes no account of possible price variations, which are almost certain to be downward for much of Sarawak's production.

109. It is extraordinarily difficult to gauge the extra employment that the agricultural development programmes may offer, particularly as a great part of the effort will be directed towards improving the type of agriculture in which there is not so much unemployment as underemployment. However, it is estimated that by 1968 agriculture will be able to provide employment for the equivalent of 28,000 extra working people. A proportion of this extra work will no doubt be done by persons at present dependent on agriculture but not fully employed. Nevertheless, it is considered most important to attract new farmers—

particularly young people with a secondary education—to the land, and settlement schemes will have this as one of their most important objects.

(*b*) MINING

110. The oil field in Sarawak commenced production in 1910. The output rose to a maximum in 1929 and has been declining since that time. It is possible that second recovery techniques may prolong its life, or that an extension may be found; but both these seem unlikely and the probability is that the field will only be producing a small quantity of oil by 1975. However, even though Sarawak sources of oil are declining, it is assumed that the company will continue to make use of the refinery installations as long as sufficient oil is produced from Brunei.

111. The proven bauxite deposits are expected to last for another two to three years at the present rate of extraction. Further deposits, which might produce sufficient for five years' exports at the same rate have been found, but the commercial quality of these is lower than that exported heretofore. These are the only deposits that have been found after intensive search (without drilling) within the areas where bauxite is likely to appear.

112. It is highly probable that quarried stone will still be required in considerable quantities for road-making in 1975.

113. Possibilities of increasing mineral production at the moment rest on the following:—

(*a*) coal: the deposits are considerable, and the demand for coking coal is likely to continue indefinitely. It would appear to be mainly a matter of time until the deposits are mined commercially;

(*b*) ceramic clay: definite interest has been expressed in these deposits. Again it appears likely that they will be exploited sooner or later, and almost certainly so if the coal is mined;

(*c*) gold: to date extraction has been from the surface or by tunnels into the sides of hills. Exploration by deep drill, which commenced in 1963, may reveal further sources;

(*d*) oil: test drilling over a period of years has not revealed further oil in commercial quantities. However, the geological indications are sufficiently hopeful to encourage the company to continue their investigations.

Glass sand, dolomite and limestone are available, the last of which may well be used for the manufacture of cement.

114. Though there is little certainty about future mining output, the figure projected for 1975 is 130 per cent of the 1961 value added of the industry. Over the period of the Plan, assuming that the coal mine comes into production, it is hoped that mining may provide 600 extra jobs.

(c) MANUFACTURING

115. It is likely that some manufacturing industries which have only been able to exist in Sarawak with tariff protection will be adversely affected by Malaysia, but it is hoped that in return, some new industries serving the Malaysia market is a whole will be located in Sarawak.

116. The increase in the contribution of manufacturing to the gross domestic product by 1975 is a problematical figure, estimated at 50 per cent of the 1961 value. About 2,700 extra jobs may be expected to become available in manufacturing industry during the Plan period.

(d) BUILDING AND CONSTRUCTION

117. About three times as many people were employed in the building and construction industries in 1960 as was the case in 1947. These indications of a very high rate of growth are confirmed by the rate of building and construction investment over the period.

118. The rate of expansion of the industry in future will depend on the success of the present Development Plan, and upon prices of Sarawak's agricultural products, and it is considered reasonable to assume that the present rate will be continued.

119. On this basis, the 1975 value added would be about three times the 1961 figure, and the industry should be able to offer employment for about 3,000 additional workers by 1968.

(e) UTILITIES

120. The number of units of electricity supplied by the Sarawak Electricity Supply Corporation has been increasing, and this rate of increase has been growing, so that one may say that the quantity of electricity supplied has been doubling every five years. It is probable that by 1975 the annual consumption will be in the region of 100 million units, which will be about five times the 1961 figure. By the end of 1968 it is probable that there will be about 350 additional jobs in the electricity supply industry.

121. The main centres of population are already supplied with water, but the increase in consumption will probably be somewhat more rapid than the rate of growth of the population. It is estimated that the consumption of water will increase by about 70 per cent from 1961 to 1975, but the industry is not likely to offer more than a few additional jobs by 1968.

(f) OTHERS

122. The sectors of the economy not so far mentioned are 'services' —transportation, trade, ownership of dwellings, and government and other services—the output of which depends largely on the ability of the population to pay for them, and hence on the earnings of the primary producing sectors. It is hoped that the agricultural development pro-

gramme will result in an increase in earning power; the result of this is likely to be that the 'services' sector of the economy will expand somewhat more rapidly than the per capita income, and its contribution is expected to double by 1975. It may be expected that about 10,600 extra jobs will be provided in this sector by 1968.

(g) SUMMARY

123. The projections made in the preceding paragraphs are summarised in Table VI:—

TABLE VI

OUTPUT AND EMPLOYMENT TARGETS OF THE PLAN

	1975 Net output (Value added) (1961 = 100)	*Extra jobs made available 1964-1968*
Agriculture	160	28,000
Mining	130	600
Manufacturing	150	2,700
Construction	300	3,000
Utilities	400	400
Services	200	10,600
	175	45,300

124. The figure 175 above represents an assessment of the increase in the gross domestic product by 1975 (1961 = 100) based on the projected increases in output. Government investment during 1964-1968 is likely to be about $300 million, and may be expected gradually to rise thereafter. The total for the 14 years 1962-1975 will therefore be of the order of $930 million. What may be termed 'ordinary' private capital investment (including the private counterpart of mixed investment such as the rubber planting scheme) is expected to increase steadily, but more slowly, amounting over the 14 years to (very approximately) $790 million. In addition there will be what may be described as 'extraordinary' private investment in substantial individual projects such as the coal mine which might come to about $70 million altogether. Depreciation of the State's capital assets over the 14 years is estimated at $370 million, so that the net capital investment, both Government and private might amount to $1,420 million. The increase in G.D.P. projected for the period is $350 million so that the capital: output ratio implied is slightly more than 4:1. This, in the circumstances of Sarawak, is considered not unreasonable since such a large proportion of Government funds has to be expended on infrastructural investment, such as roads, which have a high capital: output ratio.

125. It must again be emphasised that the projections above have been calculated using 1961 prices. One may say, roughly, that on the assumption that prices stay the same the target aimed at in 1975 is to increase the national income by 75 per cent over the 1961 figure. By this time the population will have risen by about 55 per cent: the income per head of population would rise by about 1 per cent per annum over 14 years. To keep up with the rapid population growth and also increase the standard of living to this extent would be a considerable achievement, but in fact a decrease in the prices of Sarawak's produce—particularly rubber—must be allowed for. In practice it will require strenuous efforts to maintain the present standard of living in face of the rapidly increasing population: a rise in the standard of living can only be achieved by the establishment in Sarawak of industries designed to supply Malaysia as a whole, in addition to the projected increase in agricultural production.

126. As large a proportion as possible of development funds must be made available for directly productive investment. For this reason it is important to explore the possibility of making economies and reducing the costs of the various schemes. Building costs are particularly relevant since the Plan envisages the construction of a considerable number of buildings of one kind or another.

127. So far as employment is concerned, the target figure of 45,300 additional jobs to be made available during the period of the Plan is optimistic, but even if achieved would only be about adequate to meet the situation.

128. In short, even with the emphasis on directly productive investment that is envisaged, it will require the greatest effort from all sectors of the economy if the standard of living is to be maintained and employment offered to the up-and-coming generation. Any substantial diversion of investment to less readily productive sectors will mean that even those minimum targets will not be attained. This Plan is also a challenge to the wisdom and forethoughtfulness of the people.

CHAPTER III

Plan of Public Investment for the years 1964-1968

129. The object of the previous Chapter was to examine the main problems of the Sarawak economy, and to establish the general aims of the Plan. The purpose of this Chapter is to make clear the part which Government will play in achieving these aims, and to show the allocation of funds for the various capital expenditure programmes.

I.—DIVISIONAL DEVELOPMENT COMMITTEES

130. So far as Government is concerned definite procedures may be laid down for the implementation of the Plan, but its success by no means depends only on Government officials. Their skill and hard work will be essential, but even more important will be the interest, enthusiasm and effort of the people of Sarawak: in fact, without these, nothing can be done.

131. Members of the public have been drawn into the preparation of the Plan at all levels, and it will be submitted to Council Negri for approval. But the preparation and acceptance of the Plan is only the first stage. The task of putting it into practice has not yet begun.

132. The Divisional Development Committees which played a major part in drawing up the Plan will have an important role in putting it into practice. Co-ordination of the work of the various Government departments, and the maintenance of close contact between Government and the public are both vital tasks, and it is considered that these matters can best be dealt with at Divisional level.

133. The Divisional Development Committees will be required to prepare each year detailed proposals for development work within the Plan to be carried out during the next year in their Division. These proposals will then be broken down into tasks for individual departments and will be dealt with as departmental proposals.

134. The implementation of schemes will be the responsibility of individual Government departments in the ordinary way, but it will be the function of Divisional Development Committees to co-ordinate the work of separate departments to ensure that co-operation is achieved.

135. Great importance will be attached to full discussion and consultation with members of the public likely to be affected, particularly during the stage of drawing up the annual work programmes.

136. Divisional Development Committees will have as secretary an administrative officer who will be solely concerned with development

work, and who will be able to spend a considerable proportion of his time travelling, and meeting Councillors, farmers and members of the public involved in development schemes. Care will also be taken to ensure that there is a proper liaison with Local Authorities.

II.—STATE DEVELOPMENT PLANNING COMMITTEE

137. A State Development Planning Committee will be established. The purpose of this Committee will be to consider the proposals for development work from Divisional Committees and from departments, and to weld them into a cohesive whole reflecting national development aims and aspirations. The State Development Planning Committee will prepare annual development estimates; co-ordinate the work of departments at State level, and ensure that development work is implemented according to the Plan. It is intended that there should be close liaison between the State Development Planning Committee and the National Development Planning Committee of the Federal Government.

III.—DEVELOPMENT AREAS

138. During the preparation of Divisional plans, there has been a wide measure of agreement that the best way to tackle the problem of rural development is by a concentration of Government's effort upon schemes within a number of selected Development Areas. One of the reasons for this is that soil conditions in Sarawak are variable, and it is clear that the main efforts of the various agricultural subsidy schemes in each Division should be concentrated where the soil is most fertile.

139. The following paragraphs are a brief résumé of the thinking behind the Development Area concept, showing how the ideas have arisen from the twin problems of economic and social development in rural areas. This is intended to be a statement of purposes and general principles only: the implementation of schemes will vary from place to place, and detailed plans will be prepared by the Divisional Development Committees.

The Farmer's Livelihood

140. As will already have become clear, there will be large expenditure under the Plan on such things as schools and medical facilities which will benefit the rural population, but the best way of all of helping the farmer is to enable him to earn more. In the Sarawak context this has two aspects:—

(*a*) OPENING UP NEW LAND FOR AGRICULTURE

141. There can be no doubt that the best way of opening up Crown Land for agricultural purposes is by means of planned settlement over a sizable block, and on this subject the Land Committee has recommended as follows:—

> That the present wasteful system of individual application for land be abolished; and
>
> That the village or block system be used for the purpose of land administration and registration.

142. Almost all easily accessible land is already occupied, and access to sizable areas of unencumbered Crown Land can only be gained by constructing roads. Roads are expensive, and it is common sense to ensure that the maximum use is made of the land alongside.

143. Some of the areas of unencumbered land are far from existing centres of population. Indeed this is true of some of the most promising areas, with good soils, which are likely to become in time some of the most prosperous parts of the country. In order that farmers can be encouraged to settle on this new land, facilities will have to be provided for them in advance, and the necessity of establishing a new community positively demands integrated planning and a concentration of Government's resources.

144. It is clear, therefore, that the best way of opening up new land for agriculture is by the planned settlement of selected areas with suitable soils. This is one aspect of the Development Area concept.

(*b*) BETTER USE OF LAND WHICH IS ALREADY BEING FARMED

145. As has already been pointed out in paragraph 99 the income derived from farming hill padi in the traditional fashion is small, and one of the major aims of the Plan will be to improve and intensify native agriculture to enable the farmers to earn a better livelihood. To repeat paragraph 101:—

> "The lines on which this problem must be tackled are clear. Every encouragement must be given to the planting of padi on swamps instead of on hills; the steeper hills should be planted with tree crops (rubber), or allowed to revert to jungle, and other varieties of agriculture such as livestock and fruit-growing, should be encouraged. Considerable progress is being made, and, for example, over half the rubber planted under the Government subsidy scheme belongs to natives who would traditionally have been dependent on hill padi. Nevertheless, this is still a major problem, and demands intensive effort if a real improvement is to be made to farmer's livelihood in the next five years".

146. Again it is clear that the concentration of effort on an area selected as being likely to be capable of responding is the best way of tackling this problem. For example, the results of the various subsidy schemes for planting rubber, coconuts and padi, and for farm improvement, are likely to be better if these schemes are supported by the work of agricultural extension teams. Furthermore, it is certain that the services of Government staff will be at a premium, and concentrating attention on one area at a time will help to make the best use of the available manpower. To take another example, considerable expansion is proposed in the way of agricultural credit and co-operative marketing. This will be of most use in areas which are advancing agriculturally, and conversely, agricultural improvements will be encouraged and supported by the availability of credit and improvements in commercial arrangements.

147. It is of course not only traditional native farming practices which are capable of improvement but the general principle remains that, insofar as Government activity is to be the improving agency, concentrated effort upon areas likely to be receptive may be expected to produce the best results.

Making the countryside a pleasant place to live in

148. About 80 per cent of the population lives in the rural areas and it is therefore only right and proper that Government should do its best to make the countryside as pleasant as possible for them.

149. Our towns have been growing in relation to the rest of the population and, if experience from other similar countries is any guide, this tendency will continue at an ever-increasing rate. One way of finding out what would help to make the countryside pleasant is to ask what it is that attracts people to the towns.

150. Farming is very hard work, and probably the chief factor that attracts people to the towns is the prospect of earning a living by less arduous means. In this respect, the only way that the country can be made more attractive is by increasing the productivity of farming. This has been referred to in the section on the Farmer's Livelihood, but it cannot be too often stressed that, from all points of view—human as well as economic—it is increasing the productivity of our farms that will help the rural population most.

151. The second factor that attracts people to towns are the things that may be described as 'amenities': schools, medical facilities, roads, electric light, piped water, shops, cinemas. And lastly, there is the life, hustle and bustle of the town in contrast to the isolation of much of the countryside. Towns and the life in them attract the young and educated: the larger towns of Sarawak will certainly continue to be the strongest magnets, but it is important to infuse as much life and hustle and bustle as possible into the countryside.

152. It is extraordinarily difficult for Government to provide the amenities that people seek if the population is too thinly scattered. One can provide almost nothing for an isolated longhouse, except possibly for an occasional visit by a Travelling Dispensary. Where there is a group of houses, it may be possible to provide a primary school, but many of the other amenities,—regular medical facilities; piped water, electricity, roads, shops—depend on the existence of a sizable village, at least as a nucleus for the surrounding countryside.

153. It is considered that Development Areas should help with this problem. With improved standards of farming, it will be possible for a Development Area to support a fairly dense population, which in turn will make it feasible for Government to provide amenities. This has particular relevance to the native communities changing from hill-padi to

more intensive farming. These populations have been especially scattered —and it has therefore been especially difficult for Government to help them—because of the large acreage of land needed to support each family. As they change over to more intensive agriculture, it will be possible for them to live closer together, and Development Areas should be a means of offering them the advantages of living near (or even in) villages.

154. Adoption of intensive agriculture will enable the native farmer to get a better income from a smaller area of land, but it still will not enable Government to provide him with amenities unless there is (or will be) a community of sufficient size and density to justify them. The key to this problem is in the layout of the holdings which are to be intensively cultivated and these must, from the outset, be arranged so that such a community can be based upon them. It is in fact impossible to separate the two aspects, and the planning of schemes in areas at present being farmed by traditional hill padi methods must be based on the twin aims—

(i) to improve the farmer's livelihood by enabling him to take up intensive agriculture; and

(ii) to make the countryside a pleasant place to live in by providing amenities.

155. Many such schemes will involve the redistribution of land holdings which should become easier following the alterations to the land laws now in hand. A typical scheme in a hill padi farming area is likely to involve the following stages:—

(i) the selection of a block of land suitable for intensive cultivation and the selection of a site within this for a village;

(ii) the redistribution of holdings so that each family has a 10-acre lot within the block;

(iii) the bringing of this land into intensive cultivation;

(iv) the movement of the farmers and their families into the village site;

(v) the provision of amenities in the village.

Stages (i) and (ii) above must clearly be done first and in that order, but the order and rate of putting into practice of the other stages is likely to vary from one scheme to another.

156. The prerequisites for a scheme to improve agriculture and to provide amenities in a hill padi area are therefore:—

(i) a community which wishes to progress and is prepared to co-operate in the scheme;

(ii) soil suitable for intensive agriculture; and

(iii) access, or the ability to provide access.

157. One way in which Government can add to the life of the countryside and assist in the spreading of ideas is by careful siting of new

institutions, such as secondary schools, training colleges, agricultural stations. These should not be thought of as closed entities, only to be considered in relation to their own immediate needs. A lively secondary school for example, can make a great difference to a rural community, quite apart from providing education for the children. First of all there are the staff, who should be able to play a leading part in the life of the community generally; then there are the school hall and playing fields which can be used for numerous community functions; in many cases other people could benefit from things such as the water and electricity supplies required by the school, or the road made for access; and, lastly, there is the flow of Government funds into the neighbourhood, both by way of initial capital investment and also by way of monthly salaries. Such a school should be placed in a community upon which its leavening influence can work, but this is by no means regarded as a one-way flow of ideas. It is essential that children with secondary education should not become detached from the land and they have much to learn from the rural community.

158. There are thus strong reasons why Government's effort should be concentrated on Development Areas. It is not the case that people living outside such areas will be neglected, but it must be emphasised that a random scattering of effort throughout the country would lead to waste. It will be totally impossible to achieve the Plan's targets unless priority is given to Development Areas.

IV.—PROGRAMMES OF CAPITAL EXPENDITURE

Pattern of allocation

159. The targets of increase in output which are aimed at under the Plan have been set out at the end of Chapter II. If these targets are to be achieved a very large proportion of Government's expenditure will have to be devoted to the directly productive sectors of the economy. In Sarawak, this means agriculture in its broadest sense, and the increase in agricultural productivity envisaged is the backbone of the Plan.

160. It is often pointed out that the opening up of the country depends on road construction. This is true, but it is also true that roads in Sarawak are expensive, and by themselves produce nothing. An unbalanced programme in which too much is invested in roads and too little in the development of the land alongside them—or in which the wrong roads are constructed—would make it impossible to achieve the targets that have been set.

161. The rate of investment for the period will be about twice that of the 1959-1963 plan, and the public investment in agriculture will be increased to a very much greater extent than any other sector. Nevertheless, it is considered that this is the minimum investment which gives a hope of reaching the targets; and even if the targets are attained they will barely suffice to maintain the present standard of living and rates of employment.

Public investme

162. The allocation of public investment required to finance the various programmes is shown in Table VII.

TABLE VII

ALLOCATION OF PUBLIC INVESTMENT FOR THE PERIOD 1964-68

	Million $	
Agriculture		
Rubber Planting	57.7	
Coconut Planting	9.5	
Oil Palms	2.0	
Land Development	4.0	
Survey (Topographical)	2.5	
Fisheries	1.7	
Forestry	0.5	
Animal Husbandry	1.9	
Drainage and Irrigation	5.0	
Research	4.5	
Training and Extension	5.2	
Rural Credit	10.0	
Other schemes	4.1	108.6
Transport		
Feeder Roads	40.0	
Balance of cost of approved roads	21.0	
Miri-Bintulu road	20.0	
Kuching-Silantek road	23.0	
Road Surveys	1.2	
Water transport	2.5	
Civil Aviation	2.9	110.6
P.W.D. Plant and Equipment		
Purchase of plant	20.0	20.0
Communications		
Telecommunications	6.5	
Broadcasting	0.1	6.6
Utilities		
Electricity	9.0	
Water	10.0	19.0
Industry	0.8	0.8
General		
Land Acquisition	2.0	
Town Development	5.0	
Research	1.0	
Miscellaneous Rural Development Projects	5.0	
Government Buildings and Works	14.8	27.8
Social Services		
Education	28.1	
Medical and Health	19.5	
Housing	1.0	
Recreational Facilities	1.0	49.6
GRAND TOTAL		343.0

These allocations are the sums of money available to carry out the projects described in the remainder of this Chapter. The Plan is not intended to be a detailed list of proposals and it would moreover be quite impossible to lay down in advance all the work that is to be carried out over the five years. The expenditure on individual items will be arranged by means of annual budgets, and it is the purpose of the Plan to show the priorities and lay down the framework within which these budgets will be prepared.

163. The following Table gives a comparison between these allocations and the probable expenditure under the 1959-1963 Plan.

TABLE VIII

COMPARISON OF ALLOCATIONS IN 1959-1963 AND 1964-1968 PLANS

	1959-1963		*1964-1968*	
	$ million	Per cent	$ million	Per cent
Agriculture	27.8	17.4	108.6	31.7
Transport	58.2	36.3	110.6	32.2
Public Works Department Plant	13.3	8.3	20.0	5.8
Communications	5.3	3.3	6.6	1.9
Utilities	11.9	7.4	19.0	5.6
Industry	.4	0.3	0.8	0.2
General	11.2	7.0	27.8	8.1
Social Services	32.1	20.0	49.6	14.5
Total ...	160.2	100.0	343.0	100.0

164. Although one has to deal with the various schemes one by one, it must be emphasised that they are closely interrelated. To give some examples: much of the land suitable for coconuts will be near the coast and will require drainage; thus the coconut planting scheme will depend on the progress of drainage works; again, the large expansion of primary education will depend on the increased supply of teachers from the new teachers training college: and probably most obvious of all, it will not be possible to carry out the hoped-for expansion of rural production or the improvement of amenities in rural areas unless the road programme is designed for this purpose, and closely integrated with the requirements of agriculture and the rural communities generally.

(*a*) AGRICULTURE

165. Government's commitment towards agriculture will be a massive one, and great energy will be needed from the Departments concerned.

Rubber

166. The largest individual scheme will be that aimed at planting 100,000 acres of rubber during the period. The rate of planting during the 1959-1963 plan was around 10,000 acres per annum, so that the rate

of planting will have to be doubled if the target is to be achieved. In areas which are to be newly opened up for settlement it is likely that rubber will be planted on contract as this has been found to be more economical. The balance remaining to be planted by individuals will be very large, and the Agriculture Department will only be able to cope with the supervision if a considerable proportion of this is concentrated within Development Areas. The existing rates of subsidy ($250 and $450) are some way from covering the total cost of bringing the rubber to maturity and it is thus sometimes difficult for the poorer farmer to make use of the scheme. For this reason the rates of subsidy will be raised to $400 for new planting and $600 for replanting.

167. It is estimated that $9.5 million will be needed to cover the residual costs under the schemes for rubber already planted by the end of 1963: the total allocation for rubber planting under the Plan is $57.7 million.

Drainage, swamp padi and coconuts

168. One of the most important aims of the Plan is to increase the acreage of swamp padi. This does not necessarily mean that people at present growing hill padi will be encouraged to move to swamp areas and grow padi there. What is intended is that people at present largely dependent on hill padi will be encouraged to diversify their agriculture in ways suitable to their environment, and to plant swamp padi if there are swamps near their houses; but the major effort in swamp padi will be on the areas most suitable for the purpose, mainly along the coast and river banks.

169. Padi is a seasonal crop, and does not occupy the planter's time fully throughout the year. Coconuts generally thrive under the same soil conditions as padi but on the high ground, and thus work in well with the swamp padi planter's economy. Both will depend in many cases on drainage schemes: or put another way, the drainage schemes will find their justification in the acreage of padi and coconut land that can be brought into cultivation. These three programmes therefore are inter-related to a considerable degree, although it is not by any means intended to imply that this is so in every individual instance.

170. The allocations under the Plan for these schemes are as follows:—

	$ million
Coconut Planting Scheme (50,000 acres)	9.5
Assistance to padi planters (wet padi)	1.0
Padi fertilisers (dry padi)	.5
Drainage and irrigation	5.0
	$16.0 million

Oil Palms

171. The land on which it is proposed to plant oil palms is south of Miri, beyond Bukit Lambir. A road through the area is under construction, but planting on a commercial scale cannot begin until access is available. It is likely that oil palms can best be introduced on an estate basis and Government may wish to be able to provide some of the capital in an initial venture.

172. Provided that oil palms can be thus established, it is hoped eventually to introduce a scheme for smallholders either working on a co-operative basis or in conjunction with an estate factory. $1 million is allocated for possible investment as part of the capital in an estate. A further $1 million is allocated for investigation, trials and expenses incidental to establishing oil palm as a commercial crop, and for the initial stages of a smallholder's scheme if this proves feasible.

Land Development

173. As has been indicated in the section discussing Development Areas a major part of the rural development programme will centre round a drive to improve native agriculture and attract the population to centres where amenities can be provided. Individual schemes will be prepared by Divisional Development Committees, but it is likely that in a large proportion of cases some redistribution of land will be required. As a result of the revision of the land laws this will be done by purchases and sales through Government, which will form an integral part of the scheme. It is difficult to assess in advance the amount that will be required, but the sum of $4 million is allocated for this purpose, under the heading land development. It is intended that this allocation should also, where necessary, be used to meet the initial costs of settlement schemes, such as land clearance.

Survey

174. Reasonably accurate topographical maps are essential for planning many kinds of development, particularly the location of agriculture schemes and road access to them. The existing programme of topographical mapping will be continued, and $2.5 million is provided for this purpose, to cover air photography, contract mapping, labour and other associated expenses.

Fisheries

175. The Freshwater Fisheries division of the Agriculture Department has made considerable progress in improving the culture of fish in ponds throughout the country. It is intended to continue and expand the services given by the division, together with the subsidy scheme for farmers who construct new ponds. It is also proposed to initiate brackish

water fisheries development and a conservation project. The sum allocated for the freshwater schemes is $1.2 million.

176. It is intended to remedy the lack of a marine Fisheries Department by requesting the Malaysian Federal Department to establish itself in Sarawak. Details of development proposals will have to wait until such time as a survey of marine fisheries requirements has been carried out, but the sum of $0.5 million is earmarked for capital expenditure on this account, bringing the total for fisheries development to $1.7 million.

Animal Husbandry

177. The programme for animal husbandry will be a continuation and expansion of the work already started. The scheme for buffalo training is intended to improve the methods of padi cultivation; and other schemes are intended to assist in raising the standard of livestock in the country. Provision is also included for the construction of an animal quarantine station at Kuching. A total of $1.9 million is allocated for all animal husbandry schemes as follows:—

	$
Buffalo training	694,000
Pig production	386,000
Poultry production	50,000
Livestock purchase	500,000
Quarantine station, Tanah Puteh	250,000
	1,880,000

Drainage and Irrigation

178. As mentioned in paragraph 170 above, $1 million is allocated for assistance to padi planters. This money will mainly be used as a subsidy to planters to assist them in improving their land by minor drainage or irrigation works, and is in general confined to areas of land of less than 300 acres. Large schemes are usually best carried out directly by Government.

179. Malaya already has a Drainage and Irrigation Department which is experienced in conditions similar to Sarawak. It is clear that it will be desirable for Sarawak to make use of Malayan experience, personnel and equipment in this field wherever possible rather than to embark upon any duplication. It will be some time before detailed

schemes can be worked out but the need for them, and their benefit in terms of increased productivity of rice and coconuts, will be substantial. $5 million is allocated for this.

Agricultural Research

180. The existing programme of agricultural research will be continued and expanded with particular emphasis on the search for new economic crops, and altogether $4.5 million is provided for this under the Plan. It is proposed to build a new research block in or near Kuching, and a station in the Fourth Division for research into oil palms. Additional laboratory equipment will be required, and the Plan provision also covers the cost of various research projects.

Agricultural Training Extension

181. Traditional farming in Sarawak is of a low standard, but farmers are willing to learn and ready to adopt new methods. The success of the various schemes for land development and agricultural improvement depends to a large extent on the standards of husbandry of individual farmers and for this reason agricultural education and extension are important, and likely to pay dividends.

182. The first essential is to ensure that there are sufficient number of properly trained Agriculture Department staff. The site of the present Agricultural School in Kuching town is not satisfactory mainly because there is insufficient land and what there is is unsuitable. It is therefore intended to construct a new School at Semongok near the present agricultural station, and $1 million is allocated for this. It is also intended to increase the output of trained Agriculture Department extension workers, for which there is provision of $1.9 million for buildings, equipment and materials.

183. As regards the education of the farmers themselves and their wives and families, $1 million is included for two Farm Institutes, one at Long Lama and one (probably) in the Second Division; $0.6 million for Agricultural Stations in the Third, Fourth and Fifth Divisions which will be mainly for training purposes, and $250,000 for farmers' courses. In addition, there is an allocation of $319,000 to improve facilities for Women's Institutes, and $250,000 for mobile publicity units which will take displays, demonstrations and films on agricultural subjects into the countryside.

184. $1.3 millon is included in the Plan for Farm Development. The object of this scheme is to encourage balanced mixed farming, and it contains funds for subsidies for various items such as pigs, goats and fruit trees not covered elsewhere. This scheme will require close supervision by departmental staff, and will be new to Sarawak.

Pepper

185. It is not intended to invest Government funds with the aim of increasing the acreage of pepper cultivated. Nevertheless, the pepper farmer's income can be increased if his produce can be sold on the world market to the best advantage. This implies that Sarawak pepper must become known as being of consistently high quality, which in turn means that it should be properly processed before export. One pepper processing plant has been established at Sarikei, and $300,000 is provided for the establishment of two further plants in Kuching and Miri. There is also a small sum ($9,500) allocated for a pepper quality certification scheme.

Rural Credit

186. The major part of Government assistance to the farmer will be given directly through the various subsidy schemes. However, these schemes will not cover such expenses as housing for farmers who move into new areas, and many farmers will have other capital requirements. In short, it is likely that a large amount of rural credit will be necessary to help the farmer and the fisherman to make good deficiencies in their capital resources. Government rural credit will be channelled through the Sarawak Development Finance Corporation and through the Co-operative Central Bank. It is hoped to arrange schemes for the purchase of low-cost rural houses and the maintenance of rubber and pepper gardens; for the provision of credit to pig farmers, poultry keepers and fishermen; and for improvement to marketing arrangements. $10 million is allocated for rural credit and it is likely that a considerable expansion in the activities and staff of the Sarawak Development Finance Corporation will be necessary.

Other Agricultural Schemes

187. The sum of $4.1 million for "other schemes" includes provision for a number of items which have already been discussed. In addition, $519,000 is allocated for continuing the farm mechanisation scheme, and $350,000 for fruit production; finally, there is $169,000 for transport equipment for the Department of Agriculture.

Forestry

188. Provision of $268,000 is included for the completion of the Timber Research and Technical Training Centre, Kuching, the object of which is to give training to operatives in improved techniques, and to introduce better methods of timber treatment. $200,000 is also included for two small research schemes; one to examine the possibilities of establishing commercial forest plantations on soils unsuitable for agriculture, and the other to investigate the borers which attack certain species of commercial timber.

(*b*) TRANSPORT

189. Difficulties of terrain and climatic conditions make road building exceptionally expensive in Sarawak. There are wide areas of swamp near the coast (where the main settlements are) which present severe problems: inland the terrain is often steep, necessitating much earthmoving; and stone deposits are few and far between. There are many rivers and streams which have to be bridged or crossed by culverts, which adds considerably to the cost of construction, and the heavy rainfall and frequent flooding increase the difficulties of construction and the cost of maintenance. The heavy rainfall also means that the simple earth-surface minor road which can be used for motor transport elsewhere often proves unsatisfactory in Sarawak.

190. Yet it is clear that road access is the key to the opening up of new land for cultivation, and is also essential to schemes for improving agriculture in already settled areas.

191. Since roads are exceptionally expensive, both to build and to maintain, their routes must be chosen with the utmost care, and with strict attention to what benefit is to be expected from them. The aim of this Plan may be summarised in a phase as rural economic and social development, and it is therefore for these purposes that roads must be planned. In more precise terms, this means that roads giving access to land for which there are settlement or improvement schemes must be given priority over routes whose main use is point-to-point communication. The value to the economy of roads of the latter type is likely to be relatively small in Sarawak, simply because there is only a small population to make use of them.

192. The main emphasis as regards road construction during the Plan period will therefore be upon feeder roads planned in connection with agricultural development schemes. Proposals from Divisional Development Committees amount to approximately 500 miles and this is the least that can be constructed if the agricultural targets are to be achieved. On the basis of $80,000 per mile average cost, $40 million is allocated for feeder road construction, and it is intended that these should be located and constructed in accordance with Divisional Development Committees' rural development plans. The continuation of the Sibu-Ulu Oya road (survey approved but no funds for construction yet provided) will be constructed to feeder standard, and provision will be taken from this allocation.

193. The balance of the cost of the approved construction programme of roads and bridges will nominally be about $12.5 million required during the new Plan period. However, there have been considerable increases in cost, and the final revised allocations are given in Table IX.

TABLE IX

COST OF COMPLETING APPROVED ROADS

Road	*Length (Miles)*	*Revised Estimated Cost*	*Balance Required 1964-68*	*Revised Cost Per Mile*
		$	$	$
Batu Kitang Bridge	—	1,400,000	1,198,845	—
Bau/Lundu	35	4,150,000	3,247,780	118,500
Lundu/Serayan	9½	307,000	16,971	32,000
Serayan/Sematan	7½	895,000	511,927	119,000
Simanggang/Engkilili	18	2,805,246	950,000	93,500
Undup spur	12			
Town Roads, Second Division ...	—	514,000	262,793	
Engkilili/Saratok/	62			
Saratok/Jakar	30	16,441,694	10,291,192	170,000
Roban spur	5			
Kelupu/Julau/Durin	33	4,610,596	2,513,000	140,000
Sibu/Ulu Oya	34	3,417,000	472,960	100,000
Tanggi spur-road	8	600,000	320,040	75,000
Bintulu/Sibiew	5	375,000	30,194	75,000
Miri Town Area roads	—	529,000	147,076	
Lambir/Subis	14	2,744,000	1,031,322	196,500
Lawas/Lawas Damit	9.6	656,666	5,900	68,500
		TOTAL ...	21,000,000	

194 Soil surveys have indicated large areas of good land in the region between Miri and Bintulu. The Lambir-Subis road will have reached a point about 14 miles south of Miri in the direction of Bintulu by the end of 1963, and the Sibiew valley road will have advanced 5 miles from Bintulu to meet it. There is however a large gap of about 100 miles. It is of great importance that part at least of this area of good soil should be opened up during the plan period, particularly in order that oil palms may be established, and $20 million is allocated for work on the road between Miri and Bintulu.

195. After extensive examination of the problem it is clear that the most economical way to transport coal from Silantek to a port will be by road to Pending (Kuching), but it will be necessary to remake the 42-mile section from Pending to Serian to carry the heavy traffic. The estimated cost of this is $15.5 million. The 45-mile section between Serian and Silantek is of recent construction and forms part of the Serian-Simanggang road. It would however be necessary to strengthen this section and broaden the pavement: the estimated cost of this is $7 million, and an additional $½ million is provided for land acquisition, bringing the total for the 'coal road' to $23 million. It is hoped that the I.B.R.D.

will lend the money to Malaysia for this purpose. A toll would be paid by the coalmining company for the use of the road. Although the money would be provided by the World Bank, it would have to be regarded as being part of $300 million available to Sarawak for development.

196. Provision of $23 million is therefore included under a special item "Kuching-Silantek road". This is not part of the general road programme, and is a scheme linked to a particular productive activity. Should the coalmining proposal not go ahead as hoped, this sum would be for allocation for other directly productive investment (agriculture, mining or industry) to compensate for the loss of productive investment in the coalmine.

197. It will be necessary to push ahead with the approved programme for road surveys and the Plan contains a provision of $1.25 million for this purpose. Costs can only be given approximately, but will probably be of the order of $1,700/mile for feeder roads, and $4,000/mile for secondary; on this basis, the Plan provision would be sufficient for the survey of 500 miles of feeder and 100 miles of secondary road.

Public Works Department Plant and Equipment

198. The estimate of $23 million for the "coal road" includes the cost of purchase of necessary plant. The provision for other road construction during the Plan period totals $81 million, and it is estimated that the plant requirements is 25 per cent of the cost of construction. Twenty million dollars is therefore allocated for the purchase of plant and equipment. This is regarded as a substantial allocation (bearing in mind that about $19 million was spent during the 1959—1963 period and much of this still has several years of life left) and is intended to cover also the plant requirements for all other Public Works Department construction work.

Water Transport

199. The expansion of facilities in an established port should aim to keep in step with the needs of trade. If the extension is made too soon capital will be prematurely tied up, with resulting losses by way of interest payments; if the extension is made too late the economy will suffer loss through congestion and delays at the port.

200. 223,000 tons of overseas cargo were handled without congestion at Tanah Puteh in 1962. The maximum tonnage that can be handled economically depends on a large number of factors, including the efficiency of port and Customs operation, the type of cargo and the ratio of imports to exports, the size of the ships calling and whether their consignments to or from Kuching are large or small.

201. Plans are in hand for the removal of a rock downstream from the port, and if these are successful it is hoped that ships of 435 feet in length and 17 feet draft will be able to use the port. However, it will still not be possible for ships to move between the anchorage at Pending and the port at Tanah Puteh except at high tide. Unfortunately the cost of dredging the river is likely to be prohibitive.

202. The port at Sibu should be capable of handling more cargo for a given length of wharf and area of transit shed than Kuching because bigger ships have access to it, and also it is possible for them to anchor off the wharf whilst waiting which is not the case at Tanah Puteh. 148,000 tons of overseas cargo were handled at Sibu in 1962. It seems likely that the effect of the regular use of the Kuala Paloh channel will be to concentrate the overseas trade for the region on Sibu. $519,000 is allocated for the completion of the present work at Sibu but on the basis of present known factors it is not desirable to enter into a definite commitment for the extension of either Sibu or Kuching wharves at the moment. It will be necessary to keep the question under review: and with regard to Sibu a detailed investigation of the port operation should be made before an extension to the wharf is considered.

203. In view of the probable effect of the Kuala Paloh channel it is fairly clear that extension of the facilities at Sarikei and Binatang for handling overseas cargoes will not be required; the most important increase for these ports may well be in the form of lighterage.

204. Mention is made elsewhere in the Plan of Government's wish to encourage development in the area south of Miri where there is soil suitable for oil palms. There is a bar at Miri, and ships are obliged to anchor off and use lighters. It should be possible to lighter oil palm produce, but it may be necessary for Government to assist in the provision of special facilities. $\$\frac{1}{2}$ million is allocated for this purpose.

205. Provision of $750,000 is made for extension to wharves and facilities for coastal and river shipping; $250,000 for anti-erosion and similar river works, and $\$\frac{1}{2}$ milliion for the purchase of ships including specialised craft for Public Works Department use, bringing the total for water transport to $2.6 million.

Civil Aviation

206. Provision is included for the completion of work in hand at Kuching ($214,000) and Sibu ($42,820).

207. No major new work on the runways at either Kuching or Sibu airport is envisaged. At Kuching the terminal building will be extended (estimated cost $75,000), and $350,000 is provided for lighting the runway.

208. Access to Miri will be an important factor in the forthcoming Plan period, and $1.5 million is included for the construction of a new aerodrome there. It will be necessary to spend $\$\frac{1}{2}$ million on better aeradio communications and $50,000 is included for improvements at

Sibu, bringing the total provision for civil aviation development to $2.9 million.

(c) COMMUNICATIONS

209. Two new 20kw transmitters are at present being installed at Radio Sarawak and $106,762 is allocated for the completion of the project in 1964. It is considered that the existing buildings and equipment should then suffice for the period covered by the plan, and no further provision is made.

210. A major programme of telecommunications development is envisaged, which will eventually include the establishment of a microwave trunk circuit and the replacement of most of the manual exchanges by automatic ones. It had originally been hoped to complete the scheme —total estimated cost $17.1 million—by 1968, but owing to the overriding need for the development of agriculture, the scheme will have to be extended over a longer period. $6.5 million is allocated for telecommunications development under the present Plan.

(d) UTILITIES

Electricity

211. The actual maximum demand on Sarawak Electricity Supply Corporation supplies for 1959—1962 together with projections on a basis of normal load growth for the 1963—1968 period are given below: —

	kilowatts
1959 (actual)	4,439
1960 (actual)	5,093
1961 (actual)	5,850
1962 (actual)	6,524
1963 (projected)	7,320
1964 (projected)	8,600
1965 (projected)	9,800
1966 (projected)	11,000
1967 (projected)	12,400
1968 (projected)	14,000

212. This 'normal load growth' projection excludes consideration of large-scale industries such as coalmining or cement manufacturing which are referred to below.

213. The capital expenditure on plant necessary to produce the extra electricity required will average $1 million a year, and the expansion of the distribution system and ancillary requirements will bring the total investment required to meet the normal expected growth to about $3 million a year over the period. Of this, it should be possible for Sarawak Electricity Supply Corporation to find about 45 per cent from internal sources, so that a total of about $8 million will have to be found externally.

214. Work will begin in 1963 on the removal of the power station in Sibu from the centre of the town to a more suitable site near Sungei

Merah. The total cost of this project will be about $3.5 million, which will be provided by a Colonial Development Corporation loan.

215. Consideration is being given to the problem of supplying electricity to small communities in accordance with the aim of the Plan to provide rural amenities. General proposals are being considered and a Government subsidy will be required. $1 million is provided for this purpose.

216. If commercial coalmining is started at Silantek it will be necessary to supplement the development of power supplies. The minimum requirement incurring the least capital expenditure would be a diesel plant at Silantek costing $8.15 million. If the production were to be 60,000 tons a month as originally planned, it could become economic to set up a coal-fired plant at Silantek with an inter-connecting line to supply Kuching.

217. There are some varieties of industry, such as sawmilling which need power in remote places which SESCO cannot supply. However, in general, industries will tend to develop and expand where labour and power supplies already exist, that is in the vicinity of existing centres of population. Thus the trend of development in private generation is likely to be on a relatively limited scale, and the increase in private installed capacity might be at the rate of 500 kw a year from about 8,500 kw at the end of 1963 to about 11,000 kw at the end of 1968. Of this, the majority will probably be minor generating sets supplying small localised communities, Government development such as schools, airports, communication centres, sawmilling and minor mineral works. Obviously, this pattern would be radically altered if there were to be unexpected mineral discoveries or other development.

Water

218. No particular technical problem is involved in providing the larger towns and villages (population over 2,500) with piped water, and indeed this has now been broadly achieved. Not less than $16 million has been invested since 1952 to supply about 150,000 people, or in other words more than $100 per head for 20 per cent of the population.

219. A very considerable degree of subsidy is already required to give the smaller villages piped water supplies, and the smaller and more scattered the communities become the more subsidy required. Three means will be pursued to enable a greater proportion of the rural population to have a supply of pure water: —

(1) Government assistance with well and unpolluted river supplies at longhouse level.

(2) The provision of treated water by stand-pipes in communities too small for individual piped supply.

(3) Attraction of farmers into villages so that it becomes possible to provide a water supply as in 2 above. This is part of the Development Area policy.

$5 million is allocated for implementing the policy for rural water supplies outlined above.

220. The present system whereby the arrangements for each of the water boards and Public Works Department supplies to towns and villages are made separately has probably had two results:—

(i) a disproportionate amount of Government's funds has been invested on a small fraction of the community;

(ii) a number of individual piped supplies have been constructed for communities which are too small, so that at present rates a subsidy will be required for many years to come.

221. It is not considered that further development funds by way of grant should be made available for supplies of this kind until an overall policy is adopted, particularly with regard to rates. An allocation of $5 million by way of loan is made for extensions to existing supplies which can clearly be shown to justify loan expenditure.

(*e*) INDUSTRY

222. A sum of $750,000 is allocated for assistance to industry. It is likely that this sum will in fact be used for the purchase of shares in Borneo Development Corporation Limited, which is Government's main instrument for finance and general assistance to industry.

(*f*) GENERAL

Land Acquisition

223. $4 million has been allocated for land development in connection with agricultural schemes much of which will be used to acquire land for re-distribution for intensive agriculture. Individual schemes (for example, secondary schools) which may themselves require land, contain financial provision for land acquisition. However, it is desirable for funds to be available which Government can use to buy land in advance of specific planning for particular schemes and $2 million is provided for this purpose.

Town Development

224. The populations of towns in Sarawak have been increasing at a rate above the average for the country, and one of the main reasons for this is that they are relatively well-provided with amenities when compared with the countryside. If the Government spends a disproportionate amount of money on further improving the towns the population trend would be accentuated, with the long-term result that the towns would contain large numbers of unemployed people.

225. Government has assisted a number of towns, where the roads were not originally constructed to take motor traffic, in bringing their roads up to a satisfactory standard when feeder or secondary roads have been built through or linking, the towns. It is recognised that similar assistance may be required for a few other towns in future. $1½ million is allocated for this purpose, of which about $150,000 will be required to complete work in hand.

226. Almost all the allocation of some schemes already discussed — e.g., $8 million for electricity, $5 million for town water supplies — will be spent on towns, and Government assistance for the further improvement of existing towns will be in a form that does not require subsidy by the general taxpayer.

227. It is likely that new small villages and towns will grow up following the opening up of land and the construction of roads, and these new communities may require grant assistance from Government. Also, should the coal mining project come about as hoped, a new township will certainly grow up nearby which would similarly require Government support. A total of $5 million is allocated for Town Development for use in the manner outlined above.

Research

228. $1,000,000 is allocated for various kinds of research. This will include, for example, hydrological research to provide information essential for considering any future hydro-electric project; and the continuation of a medical research scheme.

Miscellaneous Rural Development Projects

229. Self-reliance and self-help will be encouraged, particularly in rural communities; and where for example a community is prepared to collect funds or give labour for work on a bicycle track, Government should be in a position to give some financial assistance. Also, it would be unrealistic to assume that all the requirements for rural development have been covered in the Plan, or indeed that all such requirements can be thought of in advance. When such needs arise they must be met without delay or development will be held up. Five million dollars is allocated for miscellaneous rural development projects including government buildings required for schemes in Development Areas. A proportion of this sum will be made available to Divisional Development Committees for expenditure on minor works and urgent projects on their own responsibility.

Government Buildings and Works

230. The cost of completing various Government buildings already started will be about $2.7 million required in 1964. The new Government office, Kuching, is a substantial project estimated to cost about $1.7 million but it cannot be hoped that the large-scale development envisaged can be achieved without further expenditure on Government buildings. $½ million is allocated for other improvements in Kuching; $5 million for replacements, extensions and improvements to Government buildings and works, and a further $5 million to cover all additional Government buildings (including housing and Public Works Department requirements), bringing the total on this account to $14.8 million. It should be mentioned that a move has recently been made to give increased encouragement to Government officers to provide their own accommodation by paying a rent allowance, and this is expected to reduce the demand for quarters particularly in the larger towns.

(g) SOCIAL SERVICES

231. The 1964 — 1968 Development Plan envisages an expansion of the already large Government expenditure on social services, commensurate with the wishes of an increasing population, and with the necessity for investment in directly productive activities.

232. Education and health are things both desirable in themselves and essential for an expanding economy: yet it is imperative also to provide the means of livelihood for the children now being educated and cared for. This is a restatement of the perennial problem, referred to in the preface of the 1959 — 1963 Plan: —

> "The main difficulty of the development planner is to establish a balance between the demand for social services, and the need for economic development".

Education

233. In considering future policy regarding education it must never be forgotten that Sarawak is predominantly an agricultural country in the sense that over 80 per cent of the economically active population is engaged in agriculture, forestry and fishing. The important point is that this proportion is unlikely to change very substantially in future, which means that, whatever the improvement in the education system, four-fifths of the employment opportunities will of necessity be in rural occupations.

234. Owing to the fact that Government expenditure on education on a substantial scale began only after the war, there are still jobs in towns or in Government service for most young people with, for example, Sarawak Junior Certificate. With the rapid expansion in education which has taken place, and which is proposed for the 1964 — 1968 period, it is probable that something of the order of 2,000 boys and girls will pass Sarawak Junior Certificate in 1968. When this is compared with the figure of 412 for 1958, and when it is realised that the numbers will be increasing all the time, the scale and importance of the problem of adapting educated young people to the rural life that many of them will lead can begin to be gauged.

235. This problem is one of those around which the thinking in this Plan is centred, but it is only partly an educational matter.

236. As regards the educational system itself, secondary teaching is so far as possible given a 'rural bias' and husbandry has now become an optional subject in the Sarawak Junior examination. It is considered most important that secondary schools should become part of the rural communities which they serve, so that they may come to be regarded as a natural introduction to an improved way of life in the countryside, rather than as a stepping-stone towards a job in the town. This question of the interaction between secondary schools and the community which they serve has been referred to in paragraph 157 of this Chapter in the section on Development Areas.

237. However, no amount of instruction or exhortation will make boys with a secondary education want to become farmers unless farming will provide them with a satisfactory livelihood, and unless the countryside is provided with reasonable amenities. The way in which Government's resources will be directed to the twin aims of improving the farmer's livelihood, and making the countryside pleasant has been explained in the section about Development Areas.

238. At the moment, it is the ambition of most young Sarawakians to obtain the secondary education that will enable them to get a job in the town. This seems reasonable to each individual as an ambition, but unfortunately it does not add up to a possible aim for the country as a whole. The number of jobs in towns is limited, and as the number of boys and girls with secondary education increases, so a greater proportion will have to find jobs in the country. Whatever the government does, it is only the people who can bring about the change of attitude that is needed. The government will do its best to provide an educational system that has its roots in the countryside, and it will do its best to make rural life as rewarding and as pleasant as possible; but it is up to the young people themselves to find a new pioneering spirit that will encourage them to remain with their education in the countryside.

Primary Schools

239. It is the aim of the programme of primary education development to ensure that by 1968 there is a place in a primary one class for every child who is likely to be able to go to school. Enrolment for aided primary schools increased by 27 per cent during the 1959 — 1963 period and now stands at slightly over 100,000. It is expected that by 1968 the figure will have risen to 121,000. Places for the school children in 1969 will have to be got ready in 1968 during the present Plan period: the expected 1969 primary enrolment is 129,000 and 27,000 additional places will have to be provided. (About 2,000 extra places will have been provided in 1963 to cope with the expected increase in enrolment in 1964).

240. The age-structure in primary schools is better than it was, partly owing to the introduction of regular annual promotion in 1958. However, this is still a problem in sparsely populated areas since it is difficult for very young children to travel very long distances to school or to board unless there are adequate facilities. In order to improve the situation it is intended to provide more and better boarding facilities, but it is not possible to set a target figure of reduction in percentage of over-age children, since there will be a temporary influx of such children in every school opened in a new area.

241. Wastage rates have fallen, but are still excessive. The primary six enrolment in 1959 was about 40 per cent of the original primary one and in 1963 the percentage had risen to about fifty. The aim under the Plan is that by 1968 the primary six should be 80 per cent of the original primary one. An important factor in this respect is the provision of more

higher primary classes so that children, many of whom now have to leave after primary four, can obtain a full six-year course.

242. The aims of the primary school building programme are:—

(i) to provide 27,000 additional places;

(ii) to accommodate 5,000 additional boarders and replace some existing boarding accommodation; and

(iii) to replace and repair some existing classrooms and teachers' quarters.

It is estimated that this will cost about $12¼ million, or less if ways can be found to make satisfactory buildings at reduced cost. $8.1 million is provided for capital grants to managements to assist them to carry out the programme.

Secondary Schools

243. With the increasing number of children in primary schools and the increasing proportion of those who reach primary six, the existing policy of providing in Government or aided secondary schools places for about 30 per cent of those who sit for the selection examinations will require very heavy Government expenditure. It is estimated that it will be necessary to expand the secondary school system to provide 45 additional form one's by January, 1969. In accordance with existing policy a great proportion of the new places will be provided in Government secondary schools in rural areas. In fact, twenty new Government secondary schools are envisaged. A total of $8.1 million is provided for the construction of these schools on the basis of $400,000 for a two-stream school and $500,000 for a three-stream school, these costs to include the purchase of land.

244. The major expansion of secondary education will take place in Government secondary schools, but in a few cases extra forms will be added to aided schools. In addition many secondary schools will need assistance to build and equip science laboratories and workshops to meet the requirements of the new curriculum. The extent of building that can be undertaken will depend in part on the ability of managements to raise their share of the cost. $2.0 million is allocated for Government's contribution to improvements to aided secondary schools.

245. The normal secondary education is the three-year course given in the Government Junior Secondary schools referred to above. To provide for those capable of continuing an academic education beyond Sarawak Junior there will also be expansion at the Senior Secondary and Sixth form level. $2.4 million is allocated for expenditure on Government schools for this purpose.

246. Finally $1.0 million is allocated for extensions to existing Government secondary schools for such items as teachers' quarters, dormitories and sports and athletics facilities.

Teacher Training — primary

247. At the moment there are about 3,300 teachers in primary schools, which gives a ratio of about thirty pupils per teacher on the average. However, only about 1,300 or 40 per cent of these are classified as trained. A new teacher training college will be required which will concentrate initially on producing primary school teachers to cope with the annual increase in school population. The college will be designed to accommodate 300 students doing a two-year course, and the suitable location would be in an area accessible to both Second and Third Divisions. $1.5 million is allocated for this project and it will be necessary for the new college to be of a much simpler type of construction than the Batu Lintang one. Batu Lintang Teachers' Training College should produce about 600 trained teachers for primary schools from December, 1963 to December, 1968; the Sarawak Teachers' Training College, Sibu, about 100; and the new college should produce about 300, making 1,000 in all. On this basis, by 1969 about half of the total number of teachers would be trained which would be better than at present. In addition, with the increasing number of young people finishing secondary education it should be possible to raise the standard of untrained teachers.

Teacher Training — secondary

248. There are at present about 320 teachers in Government and aided secondary schools (excluding temporary volunteer assistants) and a further 320 will be needed to bring the number up to that estimated to be necessary to cope with the 1969 enrolment. In addition, extra secondary school teachers will be required in unaided schools so that at least 400 will have to be found during the period. Some students who have passed the Batu Lintang Teachers' Training College and Sarawak Teachers' Training College courses will be taken for secondary teaching and (if 700 are taken for primary) there should be about 230 for this purpose. Other sources are students returning from courses overseas, untrained secondary graduates and personnel from overseas.

Technical education

249. $703,000 is allocated for technical, commercial and vocational education. About half this sum will be required to complete the Centre in Kuching and the remainder will be used for various institutions in other parts of the country.

Loans to school managements

250. As was made clear in paragraph 242 it is estimated that the total cost of the primary school building programme will be about $12¼ million and this Plan allocates $8.1 million of Government funds for grants to school managements to assist them to carry out the programme. A large proportion of this sum will be used to help schools in the rural areas: government assistance for primary school building in towns, which already have better facilities and are better able to contribute funds them-

selves, will mostly be by way of loans. Managements of aided secondary schools will also require loans, and a total of $3 million is allocated for loans to school managements.

Other education

251. Provision is also made for the following smaller schemes:—

(i) $400,000 for assistance towards the capital costs of extending and improving rural and outstation libraries: grants to the Sarawak Library to assist it in carrying out its function of central library for the State as a whole might also be included.

(ii) Heretofore schools broadcasting has been mainly designed for primary schools but it is likely that courses will be extended to secondary schools during the period of the Plan. It will be necessary to provide additional receiving sets for this purpose and also to add to the number available in primary schools. A total of $100,000 is allocated for the purchase of equipment for schools broadcasting.

Medical and Health

252. Whilst provision is made under the Plan for the new General Hospital in Kuching, the main emphasis during the period will be on the further extension of medical and health services in the rural areas. Under the rural health improvement scheme, training is given to men from rural areas for work on environmental sanitation. It is planned to train approximately eighty such workers during the period and to deploy them principally within Development Areas. The pilot phase of the scheme started in 1962, and $657,000 is provided under the Plan for the 1964 — 1968 period. It is intended that ultimately the local authorities should become responsible for this type of work.

253. It has proved necessary to extend the 'attack' phase of the malaria eradication project beyond the period originally envisaged, and $1,106,000 is provided for this purpose. $740,000 is included for the continuation of the tuberculosis control project and it is planned to start the ulu phase in 1964.

254. $100,000 is allocated for mass health campaigns, and it is proposed to continue the work on leprosy, to investigate the problem of trachoma and to initiate work on nutrition. The school dental service will be extended, and $765,000 is included for this.

255. The Divisional Development Committees have made proposals for new rural treatment centres, and $2,124,000 is provided for the implementation of these proposals, together with the completion of some existing work.

256. There has been a striking increase in the numbers of patients treated at the various psychiatric clinics which has now become a particular feature of the mental health service. Many of these patients require 'follow up' treatment and $150,000 is allocated for the establishment of two units for this in Sibu and Miri.

257. Planning of the new General Hospital, Kuching, began in 1962. The construction will take place in two stages: the first will provide approximately 300 beds, casualty reception, and the basic ancillary services, and the second a further 270 beds, a training school and a laboratory. The hospital will provide specialist services for the benefit of Sarawak as a whole in addition to meeting the needs of the First Division. It is intended that the first phase of the work should be undertaken during the forthcoming period and $13.5 million is allocated for this work.

258. Other proposals included are the following:—

	$
Completion of the Central Medical Store ...	27,425
Medical stores at Simanggang and Sibu ...	150,000
Extension to Limbang Hospital	50,000
Expansion of Maternity Unit, Sibu	150,000

Housing

259. Borneo Housing Development Limited is a building society, of which the share capital is owned one-half by the Colonial Development Corporation, and one-quarter each by Sarawak and Sabah. Borneo Housing Development can borrow to the extent of twice its share capital. It is envisaged that the society will require to have available an additional $12 million for loans during the period, which implies an investment of $1 million by Sarawak, and this sum is allocated under the Plan.

260. It is recognised that the private investment in housing that is hoped for depends on, amongst other things, the availability of land. Government will help in this respect where possible, but not to the extent of subsidy which would represent a subsidy by the general taxpayer to the town dweller who already has an adequate share of Government expenditure.

Recreation facilities

261. With the rapidly-growing numbers of young people there is an increasing demand for sports and recreational facilities, particularly athletics tracks and football fields. As in the past, the money for recreational facilities will be found partly from public subscriptions, partly from Local Authorities and partly from Government and $1 million is allocated under the Plan to be used for Government's contribution to such schemes.

CHAPTER IV

Outline of Private Investment for the period 1964-1968

262. The aims of the Plan were set out in Chapter II as targets for the economy as a whole. Chapter III showed the part that Government investment is to play in achieving these aims, and it is the object of this Chapter to review the probabilities and possibilities for private investment during the forthcoming period.

263. In the Report on Gross Capital Formation for the year 1961 it is estimated that somewhat over half of all investment in capital assets originated from non-Government, or 'private' sources; and private investment is expected to play an important part in the effort to raise the standard of living and to provide employment in future. In order to achieve the increases in output aimed at, a very large total investment is required and, in fact, the rate of Government development expenditure is to be approximately doubled. It is not expected that private investment from domestic savings will keep pace with this increase, but it may be possible to attract additional funds for investment in special projects. The overall assessment is that, whilst substantial increases in private investment are likely, the increase in Government expenditure will be even greater: over the fourteen years between 1961 and 1975 private investment will form somewhat less than half the total, in contrast with the position for the year 1961 itself.

264. It is convenient to divide probable future private investment into 'ordinary' which may be regarded as a continuation or expansion of the sort of investment that is being made at the moment; and 'extraordinary' which refers to substantial individual new projects which are envisaged.

I. ORDINARY PRIVATE INVESTMENT

(*a*) DWELLINGS

265. It is considered likely that investment in dwellings will do somewhat better than keep pace with the increase of population and that in general the standard of housing will have improved by 1975. This is an optimistic assumption, and depends on amongst other things the availability of land for low-cost housing in the towns. As has been pre-

viously mentioned, the Government will help in this respect where possible, but not to the extent of subsidy. Fields with possibilities for private investment include the construction of cheap houses of reasonable quality, and in particular prefabricated treated timber houses; and providing more hotel accommodation in the larger towns. (Local authority and Government school construction is of course not private sector investment, but the construction work is normally carried out by private contractors. It is considered that this is a field in which prefabricated timber construction is particularly suitable, and the size of the education development programme should make possible economies of scale).

266. In quantitative terms it is estimated that the value of housing property in the country will increase by 90 per cent by 1975, as against a population increase of 55 per cent. Allowing for depreciation, this would require a gross capital investment of about $230 million over the fourteen years, or an average of $16.5 million per annum. This compares with the estimate of $14.5 million for the year 1961, and a gradual annual increase is therefore expected.

(*b*) NON-RESIDENTIAL BUILDINGS

267. The 1961 figure for private investment in non-residential buildings was $1.8 million, and it is estimated that this figure may have risen to about $2.5 million per annum by 1968.

(*c*) OTHER CONSTRUCTION AND WORKS

268. Ordinary private investment in this category consists largely of the private contribution required under the various agricultural subsidy schemes, which the planter makes often in the form of his own labour. This is likely to be in the region of $55 million during the 1964 — 1968 Plan period.

269. In addition there is the share of SESCO's investment arising from internal financing and therefore regarded as being private sector investment. As was mentioned in paragraph 213 the total investment in the distribution system will be about $10 million (generating machinery comes under section (*e*)); and about half of this will be found from internal SESCO sources. Thus private investment on account of SESCO will be about $5 million, and the total for the Plan period under this heading will therefore be in the region of $60 million.

(*d*) TRANSPORT EQUIPMENT

270. The contribution of the transport sector to the G.D.P. is expected to grow more rapidly than the population. One factor will be that as feeder roads are constructed giving access to farming areas, goods which previously were carried laboriously by the producer will be transported more economically by lorry. The 1961 figure for private investment in this sector was $3.3 million, and it is expected that this will rise to around $4 million per annum by the end of the Plan period.

(*e*) MACHINERY AND OTHER EQUIPMENT

271. This covers a wide range of capital goods including sawmilling and logging equipment, factory machinery and electrical generating plant. It is estimated that private investment will rise from $15 million per annum to $17 million per annum over the period of the Plan, the 1961 figure being $14 million.

II. EXTRAORDINARY CAPITAL INVESTMENT

(*a*) OIL PALMS

272. Probably the most important single objective of the Plan is the establishment of oil palms as a commercial crop in Sarawak. Rubber represents a considerable improvement on hill padi both economically and agriculturally, and is likely to be more remunerative than hill padi even if the price falls substantially below its present level. Yet it is not desirable for such a large percentage of the State's earnings to depend on a single crop, and hence agricultural diversification is urgently needed. Oil palms are now well established in Sabah and Malaya, and there are large areas of land in the Fourth Division of Sarawak which are suitable for this crop. As has already been mentioned, it is considered that the initial development should be undertaken on an estate basis. A road giving access to the land is under construction; $2 million is allocated for Government expenditure on oil palm development, and it is hoped that at least two estates will be established during the period of the Plan. The Plan target is to plant 10,000 acres with this crop and the private sector investment required will be about $18 million.

(*b*) COAL

273. Total deposits of coal near Silantek (87 miles by road from Kuching) are of the order of seven million tons proved and forty-five million tons inferred. The deposit is of good quality coking coal and natural cokes, for which there is likely to be a demand for a considerable time to come, but extraction may be somewhat more difficult than was at first thought owing to rock intrusions in the coal seams.

274. Detailed examination of the problems has led to the conclusion that the best way of transporting the coal to a port is by road to Pending (Kuching). As mentioned in paragraph 195 this would necessitate reconstruction and improvement work to the road and the necessary Government funds have been allocated under the Plan. In addition there is an allocation under Town Development to meet the basic costs of establishing the new township that will arise.

275. Deposits of high-grade ceramic clay have been found in the vicinity of the coal, and it is probable that the extraction of this would be undertaken by the company which works the coal.

276. No detailed estimate of the capital required for these ventures is available, but it is likely to be of the order of $15 million.

(c) CEMENT

277. Sarawak is behind other parts of Malaysia as regards diversification of the economy; in Sabah oil palms are already established as a commercial crop, and in Malaya there is in addition a substantial contribution by manufacturing industry. The establishment of cement manufacturing in Sarawak would therefore be a step in the right direction, and both the raw materials and the power supplies are available. Interest has already been expressed by several concerns, and it is probable that a factory will be started at some time during the Plan period. The investment involved would be of the order of $10 million.

III. SUMMARY

278. A discussion of future private investment must be more in the nature of an examination of probabilities than an estimate, but since private investment is a considerable factor in development even an idea of the probabilities is worth having.

279. The paragraphs above indicate that ordinary private investment may average around $50 million a year during the 1964 — 1968 period, as against about $40 million in 1961. The rise would be gradual and will be partly induced by the incentive to private saving given by the Government agricultural subsidy schemes. Road construction will encourage a small increase in investment in commercial vehicles, and the inevitable tendency to urbanisation will promote investment in housing. The extraordinary investment depends on the few individual projects, and if all goes as hoped for, will be of the order of $40 million spread over the five years.

CHAPTER V

Arrangements for Government Finance

I. ARRANGEMENTS FOR GOVERNMENT FINANCE

280. Over the period of the Plan the funds which the Sarawak Government will have available for development are likely to amount to between $30 and $35 million, and the Federal Government will therefore be the main source (or channel) of development money.

281. A glance at the 1963 Sarawak estimates will show that there is a balance of about $44.3 million required to complete the work in hand. One or two of the schemes in the estimates will not now be required but most of this work will have to be carried forward into the new development period, funds for it being allocated under the present Plan. It had always been realised that some of the work could not be completed by the end of 1963 and to that extent not all of the $44.3 million is under-expenditure. Nevertheless, a proportion of it is, and experience has shown that there is usually about 10 per cent under expenditure on the annual development budget. For this reason, although the allocations under the Plan total $338 million it is unlikely that actual expenditure will be more than $300 million.

282. Table X is a detailed list of the allocations made under the Plan showing the sources from which the money is to be obtained. Provision for work to be financed from State Funds will appear only in the State budget, whilst direct Federal expenditure will be shown only in the Federal budget. Money for items shown as 'Federal Grants' and 'Federal Loans' will come in the first instance from the Sarawak development fund and will be reimbursed by the Federal Government; the provision will therefore appear in both sets of estimates. The following is a summary of expenditure according to the sources from which the funds will be obtained: —

	$
Direct Federal Expenditure	178,549,754
Federal Grant	114,783,767
Federal Loan	16,300,000
State Funds	33,437,820
	343,071,341

II. GOVERNMENT EXPENDITURE BY SECTORS

283. The proportion of Government expenditure proposed for various sectors can be summarised as follows:—

	Per cent
Economic	81
Social	14.5
Government	4.5
	100.0

The relatively high proportion of the total to be spent on economic development reflects the resolve of the Government to concentrate on the basic problems of the economy, and its view that the best way of all of helping the farmer is to enable him to earn more.

TABLE X

LIST OF ALLOCATIONS MADE UNDER 1964-1968 DEVELOPMENT PLAN, AND SOURCES OF FINANCE

Direct Federal Expenditure — dfe *Federal Loan — fl*
Federal Grant — f *State Funds — sf*

Scheme	Total allocation
AGRICULTURE	
Rubber Planting	57,700,000 *dfe*
Coconut Planting	9,520,000 *dfe*
Oil Palms	2,000,000 *dfe*
Land Development	4,000,000 *sf*
Survey (Topographical)	2,500,000 *dfe*
Fisheries:	
Freshwater	1,234,000 *f*
Marine	500,000 *dfe*
Forestry:	
Research	200,000 *f*
Timber Research and Technical Training Centre	267,568 *f*
Animal Husbandry:	
Buffalo Training	694,000 *f*
Pig Production	386,000 *f*
Poultry production	50,000 *f*
Livestock purchase	500,000 *f*
Quarantine station, Tanah Putch	250,000 *f*
Drainage and Irrigation	5,000,000 *f*
Research:	
New research block; Research Station, Fourth Division; Agronomist and research into Oil palms; Soils laboratory equipment, etc.	4,525,000 *f*
Training and extension:	
New agricultural school	1,000,000 *f and sf*
Agricultural extension; increase in training facilities and increase in output of trained extension personnel	1,878,500 *f*
Farm Institutes	962,000 *f*
New agricultural stations, mainly for training	568,500 *f*
Farmer's Courses	250,000 *f*
Women's Institutes	319,000 *f*
Mobile Publicity Units	250,000 *f*
Rural Credit	10,000,000 *sf*

LIST OF ALLOCATIONS MADE UNDER 1964-1968 DEVELOPMENT PLAN, AND SOURCES OF FINANCE

Direct Federal Expenditure — dfe *Federal Loan — fl*
Federal Grant — f *State Funds — sf*

Scheme	Total allocation
Other Schemes:	
Assistance to Padi Planters	1,000,000 *f*
Padi fertiliser subsidy	500,000 *f*
Fruit production	350,000 *f*
Farm development	1,283,000 *f*
Farm mechanisation	519,000 *f*
Pepper processing machinery	300,000 *fl*
Pepper quality Certification	9,500 *f*
Vehicles, boats, etc.	169,000 *f*
Total, Agriculture ...	108,685,068
TRANSPORT	
Roads and Bridges:	
Feeder Roads	40,000,000 *f*
Balance of cost of approved roads	21,000,000 *f*
Miri — Bintulu road	20,000,000 *f*
Kuching — Silantek road	23,000,000 *dfe*
Road surveys	1,250,000 *f*
Water transport:	
Completion of work at Sibu port	518,699 *f*
Port facilities for Fourth Division for palm oil exports	500,000 *f*
Wharves for coastal and river shipping	750,000 *f*
Marine Department craft	500,000 *dfe*
River Works	250,000 *f*
Civil Aviation:	
Completion of work at Kuching	213,846 *dfe*
Completion of work at Sibu	42,870 *dfe*
Kuching Airport	500,000 *dfe*
Sibu Airport	49,000 *dfe*
New aerodrome, Miri	1,500,000 *dfe*
Marudi	51,840 *dfe*
Aeradio	500,000 *dfe*
Total, Transport ...	110,626,255

LIST OF ALLOCATIONS MADE UNDER 1964-1968 DEVELOPMENT PLAN, AND SOURCES OF FINANCE

Direct Federal Expenditure — dfe *Federal Loan — fl*
Federal Grant — f *State Funds — sf*

Scheme	Total allocation
P.W.D. PLANT AND EQUIPMENT	20,000,000 *dfe*
COMMUNICATIONS	
Telecommunications	6,500,000 *dfe*
Broadcasting	106,762 *dfe*
Total, Communications ...	6,606,762
UTILITIES	
Electricity:	
Normal growth	8,000,000 *fl*
Rural electrification subsidy	1,000,000 *dfe*
Water:	
Rural water supplies (Grants)	5,000,000 *sf*
Loans for water supplies	5,000,000 *fl*
Total, Utilities ...	19,000,000
INDUSTRIES	750,000 *sf*
GENERAL	
Land acquisition	2,000,000 *sf*
Town development	5,000,000 *sf*
Research and Investigation	1,000,000 *dfe*
Miscellaneous Rural Development Projects	5,000,000 *f and sf*
Governments buildings:	
Balance of present work—	
PWD Depots	42,000 *sf*
PWD Central Store	600,000 *sf and f*
Central Laboratory	105,000 *dfe*
Land and Survey Office, Miri	325,000 *sf*
Government Office, Sibu	1,120,000 *sf and f*
Conversion of Central Govt. Store to Office ...	200,000 *sf*
New Govt. Office, Simanggang	277,000 *sf and f*
	(2,669,000)

LIST OF ALLOCATIONS MADE UNDER 1964-1968 DEVELOPMENT PLAN, AND SOURCES OF FINANCE

Direct Federal Expenditure — dfe *Federal Loan — fl*
Federal Grant — f *State Funds — sf*

Scheme	Total allocation
New Government Office, Kuching	1,656,000 *f and sf*
Improvements to Kuching Offices	500,000 *f and sf*
Replacements, extensions and alterations to Government buildings and works	5,000,000 *dfe*
Other Government buildings (including Government housing and P.W.D. requirements)	5,000,000 *dfe, f, sf*
Total, General ...	27,825,000
SOCIAL SERVICES	
Education:	
Capital grants, aided schools—primary	8,087,500 *dfe*
Capital grants, aided schools—secondary	2,000,000 *dfe*
Government secondary schools	
(i) Completion of existing work	560,475 *dfe*
(ii) New schools	8,100,000 *dfe*
Senior secondary and VI Form	2,367,000 *dfe*
Additions to existing Government Secondary Schools and teacher training colleges	1,000,000 *dfe*
Technical, commercial and vocational	703,000 *dfe*
Completion of Batu Lintang Teacher Training College	223,036 *dfe*
New Teacher Training College	1,500,000 *dfe*
School Broadcasting	100,000 *dfe*
Libraries	400,000 *dfe and sf*
Borneo Literature Bureau	17,820 *sf*
Loans to school managements	3,000,000 *fl*
Total, Education ...	(28,058,831)
Medical and Health:	
Rural Health Improvement Scheme	657,000 *dfe*
Malaria Eradication Project	1,106,000 *dfe*
Tuberculosis Control Scheme	740,000 *dfe*
Mass Health Campaigns	100,000 *dfe*
School Dental Services	765,000 *dfe*
New Rural Treatment Centres	2,124,000 *dfe*
Mental Health Units	150,000 *dfe*
New Sarawak General Hospital	13,500,000 *dfe*

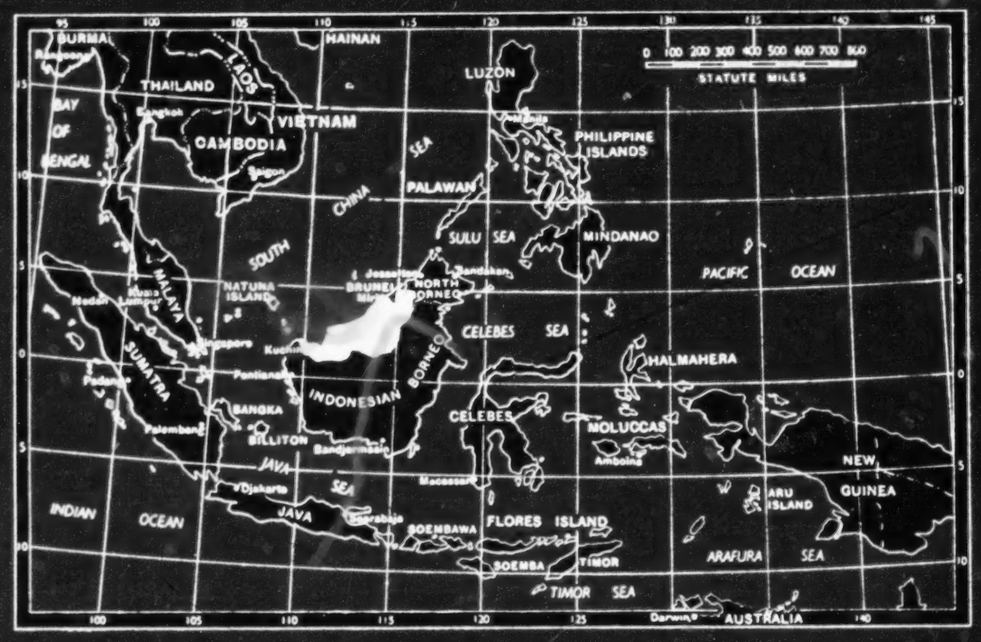
LIST OF ALLOCATIONS MADE UNDER 1964-1968 DEVELOPMENT PLAN, AND SOURCES OF FINANCE

Direct Federal Expenditure — dfe *Federal Loan — fl*
Federal Grant — f *State Funds — sf*

Scheme	Total allocation
Limbang Hospital Extension	50,000 *dfe*
Completion of Central Medical Store	27,425 *dfe*
New Divisional Medical Stores	150,000 *dfe*
Expansion of Maternity Unit, Sibu	150,000 *dfe*
Total, Medical ...	(19,519,425)
Housing: Investment in Borneo Housing Development	1,000,000 *sf*
Recreational Facilities	1,000,000 *sf*
Total, Social Services ...	49,578,256
Grand Total ...	343,071,341

SARAWAK

1 : 1,500,000

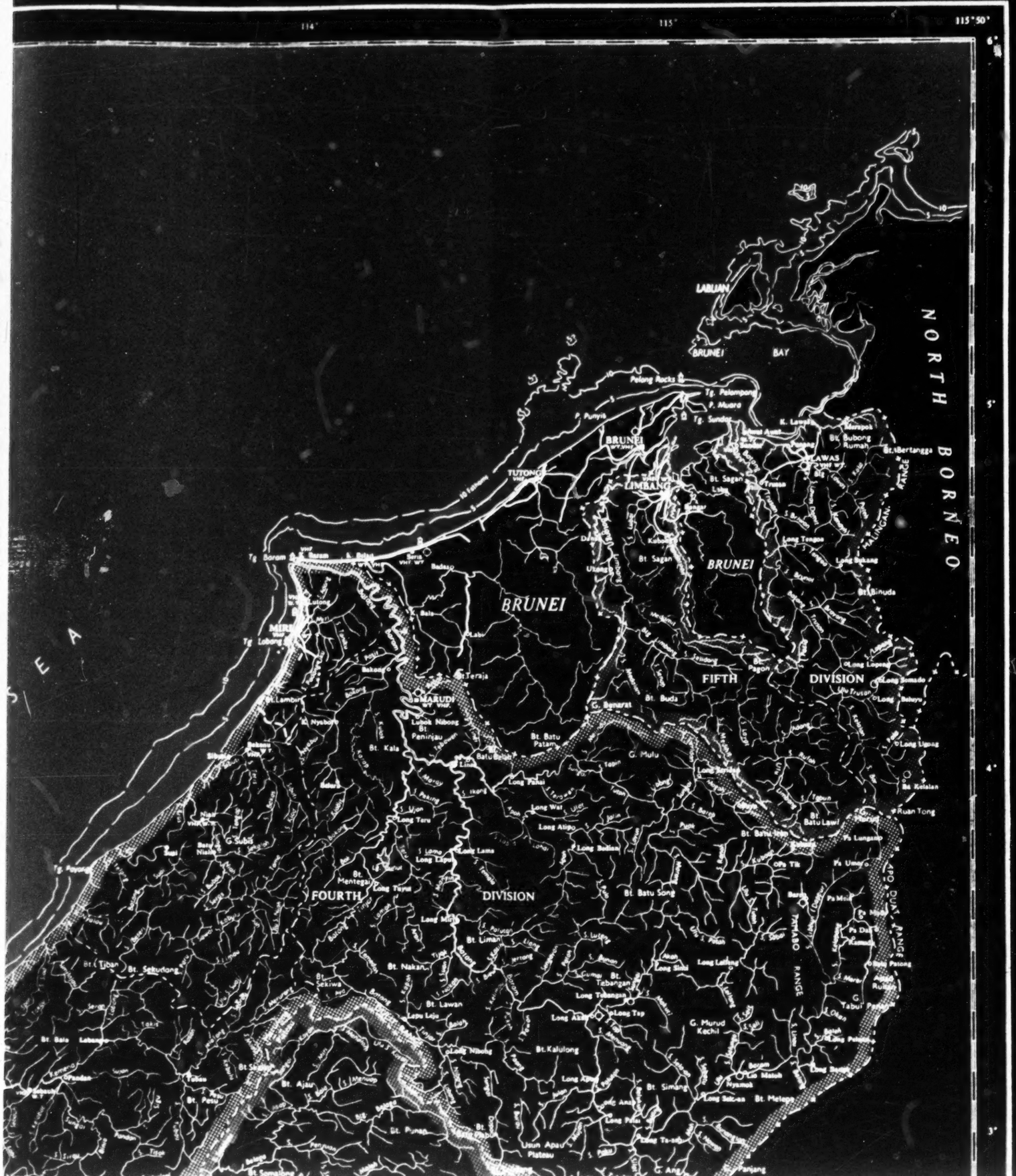


LEGEND

- Road: Main
- Road: Other
- Road under construction
- Boundary: International
- Boundary: Division
- Headquarters. Division
- Headquarters. District
- Headquarters. Sub-District
- Small Bazaar and / or Village
- W/T Station — W.T.
- V.H.F. Station — VHF.
- Lightnouse
- Airport, Airfield

CHINA

THIRD EDITION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NORTH BORNEO
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Tg. Pelompong
P. Muara
Tg. Sundar
K. Lawas
Merapok
Bt. Bubong Rumah
Bt. Bertanggi
BRUNEI
TUTONG
10 Fathoms
LIMBANG
Bt. Sagan
LAWAS
Trusan
Tg Borom
Tg Lobang
Bakong
BRUNEI
Long Tengoa
Long Semado
Long Lopeng
Long Lama
Long Lellang
Long Lio Matoh
Bt. Binuda
Bt. Pagon
FIFTH
DIVISION
MARUDI
Bt. Teraja
Bt. Kala
Bt. Batu Patam
Bt. Buda
G. Mulu
Long Pasai
Long Wat
Long Atipo
Long Berian
Long Lama
Long Tepo
Long Terus
Bt. Mentegai
FOURTH
DIVISION
Bt. Batu Song
Bt. Liman
Bt. Nakan
Bt. Sekiwa
Bt. Lawan
Lepu Loju
Bt. Tiban
Bt. Sekutong
Bt. Baio
Bt. Ajaur
Bt. Punan
Usun Apau Plateau
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Bt. Kalulong
Long Ajeng
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Long Sukang
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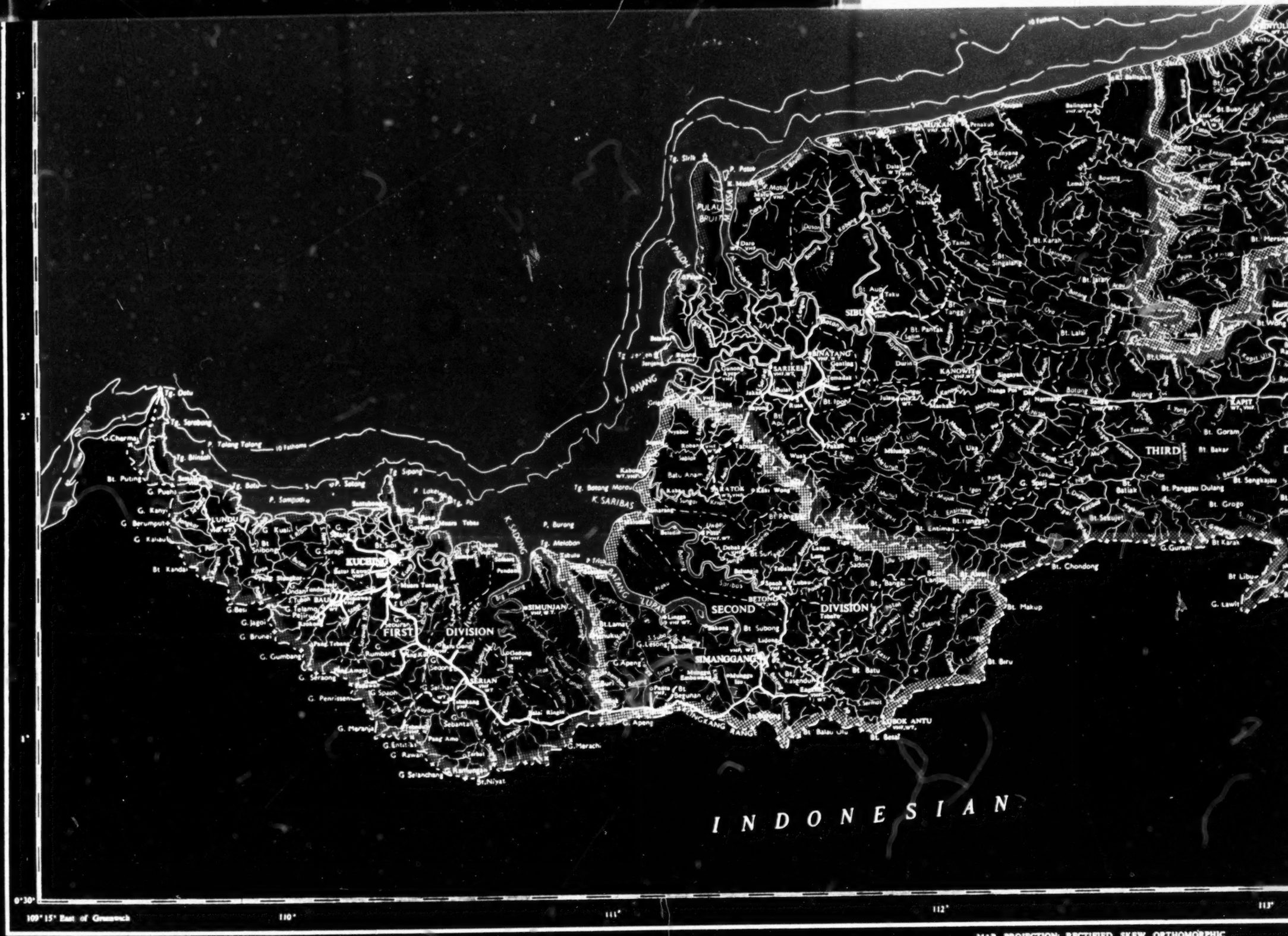
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FIRST DIVISION
SECOND DIVISION
THIRD
KUCHING
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SERIAN
SIBU
SARIKEI
BINATANG
KANOWIT
LUNDU
BETONG
SIMANGGANG
K. SARIBAS
K. RAJANG
K. PAKON
K. SADONG
K. BATANG LUPAR
SERIAN RANGE
10 Fathoms
5 fathoms
P. Talang Talang
P. Samataha
P. Lakei
P. Burong
P. Satang
Tg. Datu
Tg. Sirik
Tg. Sarabang
Tg. Blinsel
Tg. Sipang
Tg. Batang Morou
Tg. Melaban
Tg. Sirik
P. Patah
P. Motik
P. Lasa
PULAU BRUIT
G. Charma
G. Pusho
G. Kanyi
G. Berumput
G. Kalabu
Bt. Putingui
Bt Kandai
G. Kusali
Bt Sibong
G. Serapi
Bt. Soi
G. Besi
G. Jagoi
G. Brunei
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G. Serasong
G. Penrissen
G. Merapi
G. Entibab
G. Rawan
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G. Apang
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Bt. Basil
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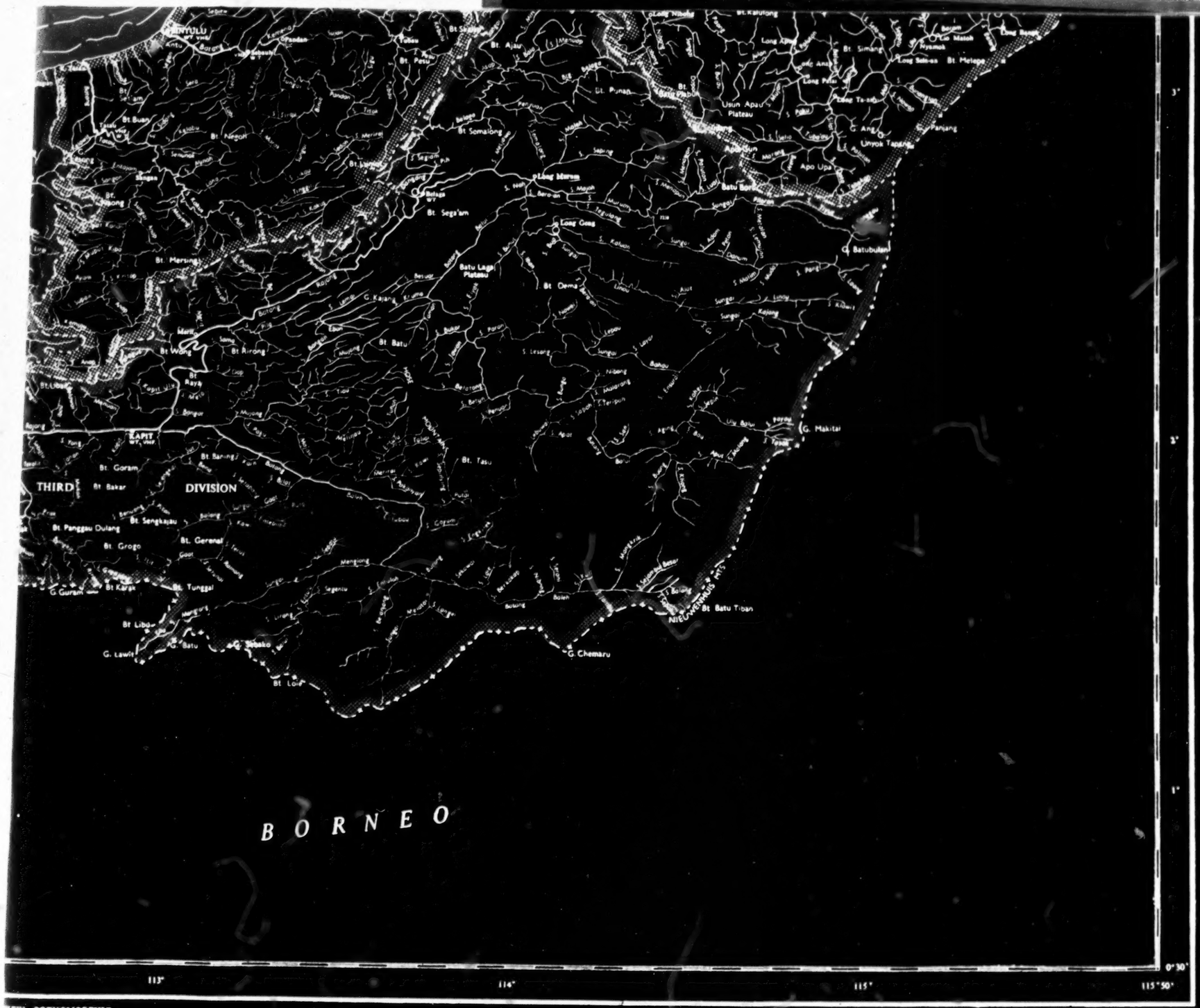

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